WORCESTER STATE UNIVERSITY

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UNDERGRADUATE STUDIES CATALOG
2014-2015

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WORCESTER
STATE
UNIVERSITY

Worcester State University
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www.worcester.edu

CATALOG
UNDERGRADUATE STUDIES

Academic Year 2014—2015

The listing of a course in this catalog is not a guarantee that the course will be offered in any particular semester. Course offerings are subject to change in response to student enrollment, faculty availability, changes in program requirements and other circumstances.

Graduate information is available in the Graduate School Catalog which can be found online at www.worcester.edu/graduate.

This catalog was prepared by WSU Publications & Printing Services.

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General Information

Prologue

From its founding in 1874, Worcester State University has been dedicated to educational programs that lead to self-enrichment and to careers in the professions, government, business, and industry.

As a public, state-supported university governed by a local Board of Trustees under the direction of the Massachusetts Department of Higher Education, Worcester State University is empowered to award baccalaureate and master's degrees in education and in the arts and sciences. While continuing its tradition of serving the residents of the Commonwealth, Worcester State University has earned a reputation for quality teaching by dedicated faculty in classes of moderate size, and for programs responsive to its students' and society's changing needs.

Mission

Worcester State University, a public metropolitan institution of higher learning located in a culturally vibrant region of the Commonwealth, affirms the principles of liberal learning as the foundation for all advanced programs of study.

Worcester State University offers programs in the traditional liberal arts and sciences disciplines, while maintaining its historical focus on teacher education. It has expanded its offerings with professional degree programs in biomedical sciences, business, and the health professions. Through its curricula, Worcester State University addresses the intellectual and career needs of the increasingly diverse citizenry of central Massachusetts.

Worcester State University is dedicated to offering high-quality, affordable undergraduate and graduate academic programs and to promoting the lifelong intellectual growth, global awareness, and career opportunities of its students. To this end, Worcester State University values teaching excellence rooted in scholarship and community service; cooperates with the business, social, and cultural resources of Worcester County; collaborates with other institutions of higher learning in the region; and develops new programs responsive to emerging community needs.

Accreditation

Worcester State University is accredited by the New England Association of Schools and Colleges, ('NEASC'). NEASC is a non-governmental, nationally recognized organization whose affiliated institutions include elementary schools through collegiate institutions offering post-graduate instruction.

Accreditation of an institution by the NEASC indicates that it meets or exceeds criteria for the assessment of institutional quality periodically applied through a peer group review process. An accredited school or college is one which has available the necessary resources to achieve its stated purposes through appropriate educational programs, is substantially doing so, and gives reasonable evidence that it will continue to do so in the foreseeable future. Institutional integrity is also addressed through accreditation.

Accreditation by the NEASC applies to the institution as a whole. As such, it is not a guarantee of the quality of every course or program offered, or the competence of individual graduates. Rather, it provides reasonable assurance of the quality of opportunities available to students who attend the institution.

Inquiries regarding the status of an institution's accreditation by the NEASC should be directed to the administrative staff of the school or college. Individuals may also contact the Association:

New England Association of Schools and Colleges
The Sanborn House, 15 High Street
Winchester, Massachusetts 01890
(617) 729-6762

The following programs are accredited by their respective professional organizations: Nursing, The Commission on Collegiate Nursing Education; Speech-Language Pathology, the Council of Academic Accreditation of the American Speech-Language-Hearing Association; Occupational Therapy, Accreditation Council for Occupational Therapy Education; and Nuclear Medicine Technology, the Joint Review Committee on Educational Programs in Nuclear Medicine Technology; Education, Counsel on Accreditation of Education Preparation. Please refer to department chapters for addresses and telephone numbers of the accrediting organizations.

Policy on Nondiscrimination

Worcester State University is committed to a policy of nondiscrimination, equal employment opportunity, and affirmative action in its educational programs, activities, and employment practices. Worcester State maintains and promotes a policy of nondiscrimination on the basis of race, creed, religion, color, sex, sexual orientation, age, disability, veteran status, marital status, and national origin. This policy incorporates by reference the requirements of Federal Executive Orders 11246 and 11375 as amended; the Civil Rights Act of 1964 as amended; Title IX of the Higher Education Act of 1972 as amended; Sections 503 and 504 of the Rehabilitation Act of 1973, as amended; Section 402, Vietnam Era Veterans Readjustment Assistance Act of 1974; the Civil Rights Restoration Act of 1988; and pertinent laws, regulations, and executive orders; directives of the Massachusetts Department of Higher Education, the Board of Trustees, the Commonwealth of Massachusetts, and other applicable state and federal statutes.

The Director of Diversity, Inclusion and Equal Opportunity may be contacted at 508-929-8117 regarding Worcester State University's policy of nondiscrimination and affirmative action (including compliance with Section 504 of the Rehabilitation Act of 1973, as amended).

Family Educational Rights and Privacy Act

Worcester State University complies fully with the provisions of the Family Educational Rights and Privacy Act (FERPA) of 1974 as amended. This federal law protects the privacy of education records and establishes the rights of students to:

1. Inspect and review their education records within 45 days of the day Worcester State receives a request for access.

   Students should submit to the Registrar, dean, head of the academic department or other appropriate official, written requests that identify the record(s) they wish to inspect. The Worcester State University official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the Worcester State University official to whom the request was submitted does not maintain the records, that official shall advise the student of the correct official to whom the request should be addressed.

2. Request the amendment of the education records that the student believes are inaccurate or misleading.

   Students may ask Worcester State University to amend a record that they believe is inaccurate or misleading. They should write to the Worcester State University official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading.

   If Worcester State University decides not to amend the record as requested by the student, Worcester State University will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. To file a complaint with the U.S. Department of Education concerning the alleged failures by Worcester State University to comply with the requirements of FERPA, the name and address of the office that administers FERPA is:

   Family Policy Compliance Office
   Department of Education
   Independence Avenue, SW
   Washington, DC 20202-4605

Worcester State University accords all the rights under the law to students who are declared independent. No one outside the institution shall have access to nor will the institution disclose any information from students' educational records without the written consent of students with the exception of the following:

- Worcester State University officials within the institution
- officials of other institutions in which students seek to enroll
- persons or organizations providing students' financial aid
- accrediting agencies carrying out their accreditation function
- persons in compliance with a judicial order
- persons in an emergency in order to protect the health or safety of students or other persons.

All these exceptions are permitted under the Act. A Worcester State University official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility. A Worcester State University official is:

- a person employed by Worcester State University in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff)

- a person or company with whom Worcester State University has contracted (such as a consultant, contractor, volunteer or other party to whom Worcester State University has outsourced institutional services or functions)
- a person serving on the Board of Trustees
- a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks.

According to the law, a person becomes a student for purposes of FERPA when they are "in attendance" at an institution. This includes attendance in person or remotely by videoconference, satellite, internet or other electronic and telecommunication technologies. At WSU, a student is defined as someone currently or previously enrolled in any academic offering of the University. This does not include prospective students or applicants to any academic program of the University. A student is an individual who has paid an admission deposit (acceptance fee), registered for classes, or otherwise entered into a contractual relationship with the university to receive instruction. FERPA becomes effective on the first day of classes for those newly admitted students who have scheduled at least one course. A student who accepted an admission offer but did not schedule at least one course, or newly admitted student who cancelled his/her registration either before or after the semester begins, is not covered by FERPA.

At its discretion the institution may provide directory information in accordance with the provisions of the Act to include:

- student's name
- photograph
- major field of study
- degree
- enrollment status
- weight and height of athletic teams
- participants in officially recognized activities and sports
- address
- date and place of birth
- grade level
- recent school attended
- dates of attendance
- honors/awards

Directory information does NOT include a student's social security number or student identification number.

Currently enrolled students may withhold disclosure of directory information by notifying the Registrar in writing of the request prior to the end of the first week of classes in the Fall. Such requests will be honored for the duration of the academic year—September through August; therefore, authorization to withhold directory information must be filed annually with the Registrar. Worcester State University assumes that failure on the part of the student to specifically request the withholding of categories of directory information indicates individual approval of disclosure.

A request to withhold the above data in no way restricts internal use of the material by Worcester State University.

In compliance with the Family Educational Rights and Privacy Act of 1974, as amended, Worcester State University reserves the right to disclose information to parents of a student under 18 and/or the parents of a student who is dependent upon such parents for federal income tax purposes.

Campus

Worcester State University's 58 acre campus is nestled in the residential west side of Worcester, the second largest city in Massachusetts and New England and a dynamic college city with over 30,000 students. The campus is a short drive from tranquil forests, hiking trails and beautiful vistas and an even shorter distance from a vibrant city life that offers popular entertainment venues, award-winning restaurants, cultural museums, historic parks, and so much more. Directions are available on the website at www.worcester.edu/directions. The physical facilities of the Campus include the following:

Helen G. Shaughnessy Administration Building
Extensively renovated from 2007 to 2009, the Helen G. Shaughnessy Administration Building combines modern convenience and efficiency with much of the charm of the old Teachers College. The building first opened in January 1932 as Worcester State Teachers College, and was designed to accommodate 300 students with spacious classrooms, a gymnasium on the second floor, and a library on the fourth floor. Helen G. Shaughnessy was affiliated with Worcester State for 64 years—as a member of the Class of 1943, associate professor, chair of the Education Department, director of student teaching, director of personnel and labor relations, associate dean of Academic Affairs, and acting executive vice president.

Wellness Center
Worcester State University is constructing a new 100,0000-square-foot Wellness Center that will replace the 56-year old Gymnasium Building. The new complex will feature a competition gymnasium, a two-court multi-purpose gymnasium, a walking track, a two-floor fitness center, three multi-functional exercise rooms, a golf simulator, and community space. Its modern fitness and wellness amenities will benefit athletes, students and the greater community. The new center is expected to open in 2016.

Kalyan K. Ghosh Science and Technology Building
Opened in Fall 2000, the Science and Technology Building is a state-of-the-art building designed to house the sciences including: Communication Sciences and Disorders, Occupational Therapy, Computer Science, Biology, Biotechnology, Chemistry, Geography and Earth Sciences, Geology, Natural Science, Physics, Health Science, and Nursing. The building contains 30 science, therapy, and computer labs; offices for faculty and staff; conference/seminar rooms; and student discussion areas. This facility also houses a 200-seat multimedia classroom and Worcester State University's Mary Cosgrove Dolphin Art Gallery.

Learning Resource Center
The newly refurbished Learning Resource Center (LRC) houses the University Library, (www.worcester.edu/library) a welcoming venue and hub for knowledge and learning. The Library collection contains over 160,000 print books, 80,000 e-books, and media materials and over 125 databases with ubiquitous online access to 42,000 full text journals. The Library staff welcomes students during the 90+ hours of operation each week. Reference librarians, provide high-quality research assistance at the Research Help Desk and an extensive course-based Library instruction program. The Library is a member of many local, state, and national Library consortia including the Academic and Research Collaborative (ARC), a consortium of 20 Worcester area libraries. Worcester State University students, faculty, and staff have full reciprocal borrowing privileges at each of these libraries via individually issued ARC cards. Library patrons may request materials from other libraries across the country and the world through a comprehensive interlibrary loan network. An inviting, modern café serving beverages and light meals is located near the Library entrance and has become a popular study and gathering place.

Outdoor Facilities
Worcester State University has the advantage of naturally attractive surroundings. Among its outdoor facilities are an artificial turf athletic field and an eight-lane synthetic track, baseball and softball diamonds, and tennis courts.

Residence Halls
Residence Halls at Worcester State University provide housing to full-time undergraduate students.

Chandler Village is a unique living area with 63 apartments in 26 interconnected townhouses. The apartments accommodate four, five, eight, nine, ten, or eleven persons and include furnished common living and kitchen areas.

Dowden Hall, more traditional in style, is a five-story residence hall that includes single, double, and triple rooms with study and recreational lounges. There is a convenience store on the first floor and a fitness center in the basement.

Sheehan Hall, is the newest residence hall which opened Fall 2014. The facility accommodates 400 students and features the main campus dining hall overlooking the John F. Coughlin Field. Each unit consists of two double or four single rooms sharing a private bathroom. In addition to housing students, this residence hall contains Health Services, the Office of Residence Life and Housing, a multifunctional room, game room, small fitness center, student lounges, and a communal kitchen. Sheehan Hall is accessible to persons with disabilities.

Wasylean Hall, named for Phillip M. Wasylean II '64, is a six-story, suite-style building with multiple study and common rooms throughout. The suites are designed to accommodate four and six people. Each unit has single and double occupancy bedrooms with furnished common living and kitchen areas. There is a coffee shop on the first floor. Wasylean Hall is also home to the University Police.

Several housing opportunities exist which offer students the opportunity to live together, take classes together and participate in activities that focus on various special interests (See 'Services for Students' section for more information).

Student Center
The Student Center is available as a resource for the entire Worcester State University community and is conveniently situated at the geographical center of the campus. The first floor of the Student Center contains the following resources: a food court area, Worcester State University bookstore, Information Desk, and the Print Center. The first floor also has several meeting/programming spaces including a fitness center, Blue Lounge, Exhibit Area and Lancer Landing. The second floor houses the Office of Student Involvement and Leadership Development, Conference and Event Services, and Commuter Services/Weekend Programming. Small meeting rooms, WSUR Radio Station and Student Government offices, and the Living Room—a lounge for commuters and residents with pool tables, ping-pong, video games and several TV's. The third floor holds several Student Affairs offices including the Dean of Students/Chief Student Affairs Officer, Career Services, Counseling, Dining Services, Judicial Affairs and Multicultural Affairs. Student organization offices, including the Student Senate, Student Events Committee, Third World Alliance, the student newspaper, and more, are also located on this floor.

Sullivan Academic Center
Named for Eugene A. Sullivan, Worcester State president from 1947 to 1970, the Sullivan Academic Center is a primary instructional center on campus. It contains faculty and academic department offices, a large lecture hall (Eager Amphitheater), the Woo Café classrooms, and a large attached auditorium. The Sullivan Auditorium provides the setting for a number of formal ceremonies including the annual Senior Capping. Also located in the Sullivan Academic Center are the Center for the Study of Human Rights, and the Center for Teaching and Learning.

Community Relations

Worcester State University values its connections with the greater community, which include partnerships with numerous individuals and organizations. The professional staff participates in events sponsored by the Commonwealth of Massachusetts, the City of Worcester, and the local Chamber of Commerce; hosts conferences, legislative meetings, and community breakfasts; sponsors seminars, lectures, and workshops; and supports a variety of initiatives in the arts and multi-cultural events. Worcester State University's calendar includes numerous programs and events to which the public is welcomed.

The Office of University Advancement is responsible for fund development and alumni relations. Annually, the office coordinates a number of special activities for Worcester State University alumni including Reunion Weekend, Homecoming, and chapter events. Fund-raising campaigns provide an array of benefits and services to current students, alumni, and friends. Contributions are used primarily for scholarships, academic awards, laboratory and classroom equipment, educational seminars, faculty research grants, and other support services to promote quality education. The office publishes a donor newsletter, manages an online alumni community, and works in partnership with both Marketing and Campus Communications to produce the *Worcester Statement*.

Campus Communications

The assistant to the president for campus communications handles media and public relations, as well as strategic communications. As chief spokesperson for the University, this individual seeks to raise the visibility and profile of the institution with the media and other key audiences. Working with the Marketing Office to edit and produce the on-line publication eNews, the assistant to the President for campus communications highlights the accomplishments of faculty, staff and students and communicates campus news.

Marketing

The Marketing Office works collaboratively with campus clients to promote Worcester State University as a distinguished public university. Worcester State University's Marketing team provides integrated marketing campaigns that include strategic brainstorming, editorial content and creative services for the University's website, publications, advertising, digital marketing and social media. The goal is for each campaign to reflect WSU's high quality, value and pride while communicating the University's story in an engaging and visual manner.

Change of Catalog Information

This catalog was prepared in the summer of 2014, with information available at the time of preparation. Provisions of this catalog are subject to change by order of the Massachusetts Department of Higher Education or the Worcester State University Board of Trustees. It is the policy of Worcester State University to provide advance notice of changes whenever it is reasonable and practical to do so. Changes to the Catalog need to be approved by the Associate Vice President for Academic Affairs.

Undergraduate Studies

Academic Programs

Worcester State University is authorized to Award the Bachelor of Arts (BA) and the Bachelor of Science (BS) degree in 25 academic programs. Worcester State University also offers Minors in 29 academic disciplines as well as 8 Interdisciplinary Minors or Concentrations.

PROGRAM	MAJOR	MINOR/ IC**	SPONSORING DEPARTMENT
Art		X	Visual & Performing Arts
Bioinformatics		IC	Biology, Biotechnology, Chemistry, Computer Science
Biology	BS	X	Biology
Biotechnology	BS		Biology
Business Administration	BS*	X	Business Administration & Economics
Chemistry	BS	X	Chemistry
Communication	BA*	X	Communication
Communication Sciences & Disorders	BS	X	Communication Sciences & Disorders
Computer Science	BS	X	Computer Science
Criminal Justice	BS*	X	Criminal Justice
Early Childhood Education	BS		Education
Economics	BS	X	Business Administration & Economics
Elementary Education	BS		Education
English	BA*	X	English
French		X	World Languages
Geography	BS	X	Earth, Environment & Physics
Gerontology		IC	Urban Studies & Consortium Instruction
Global Studies		IC	Interdisciplinary Program

PROGRAM	MAJOR	MINOR/ IC**	SPONSORING DEPARTMENT
Health Education	BS*	X	Health Sciences
Health Fitness		X	Health Sciences
History	BA*	X	History & Political Science
Information Technology		X	Computer Science
Intergenerational Studies and Community Service		X	Urban Studies
Mathematics	BS	X	Mathematics
Middle East Studies		X	History & Political Science
Middle School Education		X	Education
Music		X	Visual & Performing Arts
Natural Science	BS	X	Earth, Environment & Physics
Nuclear Medicine Technology		IC	Biology, Chemistry, Physical & Earth Sciences, UMASS Medical School Instruction
Nursing	BS		Nursing
Occupational Studies	BS		Occupational Therapy
Philosophy		X	Philosophy
Physics		X	Earth, Environment & Physics
Political Science		X	History & Political Science
Psychology	BS*	X	Psychology
Public Health	BS*		Health Sciences
Secondary Education		X	Education
Sociology	BS	X	Sociology
Spanish	BA	X	World Languages
Sport Coaching		X	Health Sciences
Theatre		X	Visual & Performing Arts
Urban Studies	BS	X	Urban Studies
Visual & Performing Arts	BA		Visual & Performing Arts
Web Development		X	Communication, Computer Science
Women's Studies		IC	Interdisciplinary Program

***Majors that are also offered in the evening.**
****Interdisciplinary Concentration (IC)**

Admissions

Worcester State University seeks to enroll students who will succeed academically, thrive socially, and contribute meaningfully to the campus community.

First-Year Student Admission

A student's high school academic record is the single most important factor in WSU's evaluation process for first-year student admission. The quality and level of courses, grade point average, and grade trends are all important factors. SAT and/or ACT scores are required. Work experience and extracurricular activities may strengthen overall credentials for admission. SAT II test scores, a personal essay, and recommendation letters are not required but may add support to an application. The TOEFL or IELTS is recommended for students who are not native speakers of English. Specific requirements for competitive majors such as, nursing and occupational studies are described in the selective majors section.

Worcester State determines first-year and transfer student admission eligibility in accordance with the published standards established by the Massachusetts Department of Higher Education (MDHE). **Meeting these minimum standards does not guarantee admission to Worcester State.**

MDHE Massachusetts High School Unit Requirements (College Prep)

English	4	
Mathematics*	3	(Algebra I & II and Geometry or Trigonometry, or comparable coursework)
Natural Science**	3	(including 2 with lab)
Social Science	2	(including U.S. History)
Foreign Language	2	(in a single language)
Electives	2	

*Beginning with the entering Class of Fall 2016, four years of high school math, included one in the senior year will be required.

**Beginning with the entering Class of Fall 2017, three years of lab-based science, including natural/physical sciences or technology engineering courses, will be required.

Minimum Grade Point Average in Required Courses

The grades earned in college preparatory courses are re-calculated into a grade point average (GPA). In re-calculating GPA, extra credit is received for honors and Advanced Placement courses. Non-college preparatory courses are not included; therefore, the GPA calculated by Worcester State may be different than the GPA calculated by a high school.

Grades will be converted to a 4.0 scale, where “A” = 4.0, “B” = 3.0, “C” = 2.0, and “D” = 1.0. On this scale, a 3.0 GPA is equal to a “B” average. A 3.0 minimum GPA is required unless the student attains one of the GPA/SAT combinations listed in the chart on the following page.

SAT or ACT Test Requirement

For students with a GPA of 3.0 or above, Worcester State reserves the right to establish additional criteria, such as a minimum SAT or ACT score and/or minimum class standing.

For those students with a GPA below 3.0, a clear-cut SAT/ACT score will be applied as a minimum standard in accordance with the Massachusetts Department of Higher Education Scale below.

GPA	SAT*	ACT
2.51-2.99	920	19
2.41-2.50	960	20
2.31-2.40	1000	21
2.21-2.30	1040	22
2.11-2.20	1080	23
2.00-2.10	1120	24

**** Based on highest Critical Reading score and highest Math score.***

- ***The Occupational Studies program requires a 3.00 and 1000 SAT or 21 ACT minimum.***
- ***The Nursing program requires a 3.20 and 1050 SAT or 22 ACT minimum.***
- ***The Public Health/Pre-Nursing program requires a 3.00 GPA and 1000 SAT or 21 ACT minimum.***
- ***No applicant with a high school GPA less than 2.00 will be admitted to a state university.***

NOTE: The Massachusetts Department of Higher Education Scale is subject to change. Students who have graduated from high school more than three years ago and have never attended college should apply as non-traditional students (see section on next page) and may present SAT/ACT scores at their option.

GED Recipients

Candidates for admission who have completed the high school diploma requirement by earning the General Equivalency Diploma (GED) must submit official GED score reports with a minimum attainment in the 75th percentile in all subject areas and an official copy of their high school transcript showing work completed and/or attempted with grades earned. GED applicants must also submit official SAT score reports if their high school class would have graduated within the last three years.

Transfer Student Admission

Students who do not enroll as first-year students may attend a community college or other college or university and then transfer to Worcester State. To do so, one of the following requirements must be met:

1) 12-23 transferable college credits and a minimum 2.5 college GPA;

2) Up to 23 transferable college credits, a minimum 2.0 college GPA, and a combination of high school grades and SAT/ACT scores that meet the admission standards for first-year applicants; OR

3) 24 or more transferable college credits and a minimum 2.0 college GPA.

If college credits have been earned while enrolled in high school, the admission standards outlined above for first-year student applicants must be met.

Previously attended college/university:

Complete, official transcripts of all work taken at any other institution must be submitted as part of the application process, whether or not credit for such work is desired or expected. Students who fail to acknowledge attendance at any college or university in which they have been enrolled automatically waive the right to have that work considered for transfer

credit. They may also be subject to denial of admission, loss of course credit, and/or suspension from Worcester State.

Non-Traditional Applicants

When students apply to Worcester State more than three years after high school graduation and have never attended a college or university, do not need to meet the admission standards for first-year students. Instead, they must show they are capable of succeeding at Worcester State based upon their high school transcript grades. Standardized test scores and other factors may be used as part of the admission process. A current resume or personal statement outlining life experience, career goals and specific reasons for applying to Worcester State may be submitted with the application.

Special Admission

If standards for first-year, transfer or non-traditional students are not met, acceptance may still be possible based upon other signs of potential for academic success in a four-year college or university program. Possible signs of success include steadily improving high school grades, high school class ranking, special talents, and strong recommendations.

Veteran/Military Applicants (VALOR Act Academic Credit Evaluation Policy)

The WSU Veteran/Military VALOR Act Academic Credit Evaluation Policy is designed to:

- Assist veteran/military applicants through the admission processes, which may require different standards and practices from the traditional freshman/transfer admission procedures.
- Assist with specific challenges and concerns as well as provide additional support in the applicant's re-acclimation to civilian life.
- Provide additional support structures to maximize success in a degree program.
- Maximize benefits students may qualify for, based on their years of service.

The Worcester State University Veteran/Military VALOR Act Academic Credit Evaluation Policy allows academic credit to be awarded for students' previous military occupation, military training, coursework and experiences towards degrees and certificates. The awarding of academic credit shall be determined by the Worcester State Admission Office and Academic Success Center, as defined by WSU policy and national best practices. Eligible students shall receive accurate and complete academic counseling in regards to the policy when they are admitted.

Admissions may use multiple methods for evaluating military occupation, training, experience and coursework for academic credit, including the ACE Guide to the Evaluation of Educational Experiences in the Armed Services, CLEP, DANTES Subject Standardized Tests, and other methods. The appropriate method for evaluation is determined by Worcester State University, based on the type of military occupation, training, experience and coursework.

Once Admissions has posted credit to the student's academic record, the Academic Success Center will review the student's credit along with his/her program of study to determine the allocation of military credit in appropriate areas. All inquiries regarding the specific allocation of military credit should be directed to the Academic Success Center.

TO REQUEST MILITARY TRANSCRIPTS:

Regardless of what branch you served in (except the Air Force), military members and veterans can obtain military transcripts from the Joint Services Transcript system, at https://jst.doded.mil/. Air Force Transcripts are available from The Air University, at http://www.au.af.mil/au/ccaf/academics/index.asp.

TO REQUEST MILITARY MEDICAL RECORDS:

To attend WSU, students must provide medical documentation. Military and veteran medical records are available from the U.S. Department of Veterans Affairs, at https://www.myhealth.va.gov/index.html.

ADMISSIONS CONTACT:
Christopher Dooley, Assistant Director of Admissions
Administration Building, Office 241
CDooley@worcester.edu
508-929-8793

ACADEMIC SUCCESS CENTER CONTACTS:
Tammy Tebo, Assistant Dean of Academic Services
Administration Building, Office 130
TTebo1@worcester.edu
508-929-8933
Colleen Wheaton, Director of First-Year and Transfer Services

Administration Building, Office 130
CWheaton1@worcester.edu
508-929-8043

International Applicants

Worcester State welcomes qualified international applicants. All of the documents listed below must be submitted before April 1 for the Fall semester (January 15 for Fall only Nursing and Occupational Studies Majors). No international applicants will be considered for the Spring semester unless:

- They are currently enrolled in an ESL program in the U.S. or in native country.
- They are currently attending a U.S. college or university.
- They currently have a visa status that legally allows them to change to F-1.
- They were accepted for a previous semester but deferred attendance due to being refused a visa.

1) Official high school/secondary school transcripts or national exam reports accompanied by formal evaluatin by a professional evaluating agency. Transcripts not in English must be accompanied by a notarized English translation.
2) Official college or university transcripts accompanied by a course-by-course formal evaluation by a professional evaluating agency in the U.S. (for courses taken outside the U.S.).
3) Official results of the TOEFL or IELTS; minimum TOEFL score of 550 (paper exam), or 79 (internet-based test) or minimum IELTS score of 6.5 is required. All TOEFL or IELTS scores must be submitted directly from the Educational Testing Service (ETS). For additional information, access www.toefl.org or call the Intensive English Language Institute (IELI) at Worcester State, 508-929-8120. The IELI is an official TOEFL internet-based test site.

   TOEFL or IELTS is a requirement for all applicants who have studied in a country where English is not the native language.

Applicants who have earned an Associate of Arts or Associate of Science degree from a regionally accredited U.S. college or university are not required to submit a TOEFL or IELTS score.

4) Official results of the SAT are required for all first-year student applicants who have graduated from a secondary school within the past three years.
5) Completed and notarized WSU Certification of Finances form with appropriate backup documentation, all educational expenses incurred while at Worcester State for one academic year (currently a minimum of $29,689 U.S. dollars).
6) A copy of the identification page of the student's passport.
7) International applicants, who have attended another college or university or secondary school in the U.S., must forward a copy of their I-20 Form with their application.

Transcripts and other documents submitted in languages other than English must be accompanied by an English translation and course-by-course evaluation (if applicable) from a recognized agency or organization. For a list of approved evaluating agencies, please contact the Admissions Office.

Please note: Worcester State will not issue an I-20 Form to international applicants until the tuition deposit is paid. The tuition deposit deadline for the Fall semester is May 1st. There will be no exceptions to this deadline.

Exceptions

Documented Learning Disability

Students with a documented learning disability, do not have to take tests such as the SAT or ACT for admission to Worcester State. However, they must submit educational testing and assessment completed within the last three years and a copy of the IEP. Students with learning disabilities must still complete the required 16 college prep units with a minimum GPA of 3.0. First-year student applicants with a language-based learning disability may substitute two alternate college prep electives for the foreign language course requirements. Applicants on a 504 must meet all Department of Higher Education requirements.

English as a Second Language (ESL) Students

ESL students, are eligible for exceptions to the admission requirements. For example, they may substitute two course electives for the two required foreign language courses. They must also take the Test of English as a Foreign Language (TOEFL) or IELTS and SAT and should contact their guidance counselor or the Admissions Office for more information.

Vocational-Technical Students

Vocational-technical students must complete 16 college preparatory courses, distributed in the same manner and with the same minimum grade point averages required of other high school graduates, with the following exceptions:

- Two vocational-technical courses may be used to fulfill the two required electives.
- Vocational-technical high school graduates who do not complete the two required college preparatory foreign language courses must complete an additional elective college preparatory course for a total of three such courses, and satisfy *one* of the following options:

1) Complete at least one Carnegie unit of foreign language;
2) Complete a fourth Carnegie unit of mathematics or science, which need not be a laboratory course; or
3) Complete one Carnegie unit of computer science.

Note: A Carnegie unit represents a full academic year of study or its equivalent in a specific subject.

This requirement will remain in effect until the Department of Education (DOE) implements its requirements regarding foreign language study for vocational-technical students. At that time, vocational-technical applicants for admission to Worcester State University will be required to meet DOE requirements for foreign language study.

Application Process

Directions for First-Year Student Applicants

Students may apply online at www.worcester.edu/apply.

Applications may be obtained from the Admissions Office, Worcester State University, 486 Chandler Street, Worcester, MA 01602-2597, 508-929-8040.

Each applicant must submit the following materials:

- an official copy of the high school transcript including first-quarter senior grades (Transcripts are deemed official only when sent directly to the Admissions Office from the high school.)
- an official copy of SAT, ACT, TOEFL, or IELTS (Test results should be submitted directly to Worcester State from the testing agency.)
- a completed Worcester State application form
- payment of an application fee: $50 for all applicants.

NOTE: The SAT includes a student-written essay and multiple choice writing section. Worcester State requires official scores of all SAT results.

High school students must request an official high school transcript that includes at least the first marking period of the senior year. Also, a final high school transcript must be requested at the time of graduation that indicates successful completion of the requirements to graduate from high school. The Admissions Office must receive this official, final high school transcript before registration for courses and the final award of financial aid is approved. All transcript materials requested by the applicant become the property of Worcester State and cannot be released to the applicant or to other institutions, agencies, or individuals.

First Year Priority Application Filing Dates: All materials should be submitted as early as possible. Preferred postmarked filing dates are as follows:

Fall Semester Early Action (first-year applicants only)	November 15
Nursing (BSN) and Occupational Studies (BSOS) - Fall only	January 15 (firm)
Fall Semester Regular Decision (September entrance)	March 1
Spring Semester (January entrance)	November 15

After these dates, contact the Admissions Office to determine if applications are still being accepted. Please note that certain majors may not be available to students completing their applications after the priority filing dates.

All pertinent deposits and the orientation fee are due on or before May 1 for those students who meet the priority deadlines.

No Spring applications will be accepted for Nursing (BSN) or Occupational Studies (BSOS).

Directions for Transfer Student Applicants

Transcripts from colleges or universities previously attended are the primary factor in determining acceptance to Worcester State. To be considered a transfer applicant, a student must have successfully completed the requirements listed at a regionally accredited college or university. The following materials must be supplied:

- An official final high school transcript, indicating proof of graduation from an accredited high school or a high school equivalency certificate indicating the test scores received. These must be received by the Admissions Office before clearance for registration or the award of financial aid is approved.
- An official transcript of all courses completed at each post-secondary institution attended (transcripts are deemed official only when sent directly to the Admissions Office from the previous colleges or universities).
- A completed Worcester State application form.
- Payment of an application fee: $50 for all applicants.

Transfers Priority Application Filing Dates: All materials should be submitted as early as possible. Preferred postmarked filing dates are as follows:

Fall Semester (September entrance)	May 1
Spring Semester (January entrance)	November 15
Nursing (BSN) and Occupational Studies (BSOS)* (Fall enrollment only - limited space into the first year level)	January 15 (firm)
LPN to BSN (September entrance)	March 1
RN to BSN (September entrance)	May 1

*Students accepted for Fall transfer into Occupational Studies (BSOS) must begin taking courses in Summer Session I.

After these dates, contact the Admissions Office to determine if applications are still being accepted. Please note that certain majors may not be available to students completing their applications after the priority filing dates.

All pertinent deposits and the orientation fee are due on or before May 1 for those students who meet the priority deadlines.

MassTransfer

Students planning to transfer to one of the Massachusetts state-supported universities or UMass campuses are eligible for MassTransfer. MassTransfer provides community college graduates who complete designated associate's degrees with the benefits of the full transfer and applicability of credit, (2.0 GPA or higher if admitted), guaranteed admission (2.5 GPA or higher), and a partial tuition discount (3.0 GPA or higher).

Benefits for students who complete associate's degrees under MassTransfer are:

Minimum Final GPA	Benefits
2.00 GPA	• No admission fee or essay • Guaranteed full transfer of a minimum of 60 credits applied to the bachelor's degree, if admitted • Satisfaction of the general education/distribution/core requirements at the receiving institution, with the receiving institution able to add no more than six additional credits/two courses, if admitted

2.50 GPA	Guaranteed admission, plus all of the above benefits
3.00 GPA	A one-third tuition discount, plus all of the above benefits *(must be used within one year after date of graduation)*

Stipulations:

- If students change their majors or if the linked baccalaureate programs require a higher grade point average or specific courses which are required of native students, MassTransfer students must meet these additional requirements.
- If, because of space or fiscal limitations, the receiving institution does not admit all qualified applicants to a given major or program, the receiving institution will use the same criteria for MassTransfer applicants as it does for its native students.

MassTransfer also provides students in the Massachusetts public higher education system the intermediate goal of completing a portable general education Mass Transfer Block that will satisfy the general education/distribution/core requirements across institutions. Students completing the Mass Transfer Block without earning a degree at any Massachusetts higher education institution with a 2.0 or higher grade point average if admitted will earn the 34 credit hours outlined below, exclusive of developmental coursework.

Mass Transfer Block	
English Composition/Writing	6 credits
Behavioral and Social Sciences	9 credits
Humanities and/or Fine Arts	9 credits
Natural or Physical Science	7 credits
Mathematics/Quantitative Reasoning	3 credits
Total Credits	**34 credits**

Benefits for students who complete the Mass Transfer Block are:

Minimum Final GP	Benefit
2.0 GPA	Satisfaction of the general education/distribution/core requirements at the receiving institution, with the receiving institution able to add no more than six additional credits/two courses, if admitted

Stipulations:

- Students enrolled in a specific major or degree program may be required to take additional courses if these courses are specifically required for the major or program and are required of native students.
- Completion of the Mass Transfer Block does not guarantee admission to the college or university

Transferring Credit from Other Institutions

Worcester State University determines transferability of credits from other colleges and universities based on best practices as outlined by the American Association of Collegiate Registrar's and Admission Officers (AACRAO), the American Council on Education (ACE), and the Council for Higher Education Accreditation (CHEA). Transfer and allocation of credit is determined based on the sending institution's regional accreditation, the comparability of the learning experience to WSU, and the applicability of the learning experience to the student's selected major/minor at WSU.

Stipulations that apply to transfer credit include:

1. College-level courses completed at colleges and universities accredited by the New England Association of Schools and Colleges, or similar regional associations, are acceptable for transfer to Worcester State University.
2. Coursework completed at non-regionally accredited institutions is considered on an individual basis, through a thorough examination of course content, syllabi, and/or learning objectives. Students may appeal the denial of transfer of credit from non-regionally accredited institutions to the Office of Admissions.
3. Transferability and allocation of courses to Liberal Arts and Sciences Curriculum (LASC) and/or free electives must be approved by the Office of Admissions and Academic Success Center, according to established LASC transfer policies.
4. Substitutions of transfer credit in the requirements of the major/minor must be approved by the department in which the major/minor is housed.
5. The completion of the MassTransfer Block at any Massachusetts community college, satisfies the WSU general core/LASC requirements, with the possible addition of two courses (6 hours) including a Capstone course and another LASC Content Area Course of the student's choice. Completion of the MassTransfer Block is confirmed upon receipt of an official transcript stamped with "MTB Complete." Transfer students without the MassTransfer Block can transfer a maximum of 40 credits into LASC.
6. The maximum number of credits that can be transferred from a community or junior college to WSU is 65. The maximum number of credits that can be transferred from a four-year institution to WSU is 90. If a student has attended a combination of two-year and four-year institutions, a maximum of 90 credits, including no more than 65 credits from the two-year college(s), can be transferred.
7. A residency requirement at WSU exists, which includes completion of at least 30 of the last 40 credits of any degree program and completion of more than half of the major/minor courses while matriculated at WSU.
8. All transfer courses must be college-level. WSU does not accept remedial or developmental coursework in transfer.
9. Courses earned with grades of C- or better will be considered for transfer.
10. Life experience credit, internships, practica, colloquia, and cooperative education experiences at another college cannot be transferred to WSU. Credit for such experiences may be offered at WSU, through a review with the American Council of Education (ACE) College Credit Recommendation Service.
11. The transfer credit evaluation process is conducted for new transfer students, upon their deposit to WSU. Prior to depositing, new transfer students are provided an estimation of transferable credits in the acceptance letter.

Worcester State University
Advanced Placement (AP) Guidelines

AP Exam	Score	WSU Course Equivalent	Credits
Art History	3, 4, 5	AR 112 & AR 113	6
Biology	3, 4, 5	Biology, no specific classes	6
Calculus AB	3, 4, 5	MA 200	4
Calculus BC	3, 4, 5	MA 201	4
Chemistry	3, 4, 5	CH 110 or CH 120	4
Computer Science A	3, 4, 5	CS 140	4
English Language/Composition	3, 4, 5	EN 101 & EN 102	6
English Literature/Composition	3, 4, 5	EN 105	3
Environmental Science	3, 4, 5	Natural Science Elective	3
European History	3, 4, 5	History Elective	6
Government & Politics of the US	3, 4, 5	PO 210	3
Govt. & Politics Comparative	3, 4, 5	PO 220	3
Human Geography	3, 4, 5	GE 102	3
French	3, 4, 5	FR 101 & FR 102	6
German	3, 4, 5	World Language Elective	6
Spanish	3, 4, 5	SP 210 & SP 211	6
Microeconomics	3, 4, 5	EC 110	3
Macroeconomics	3, 4, 5	EC 120	3
Music Theory	3, 4, 5	MU 100	3
Physics B	3, 4, 5	PY 221 & PY 222	8
Physics C-Mechanics	4, 5	PY 241	4
Physics C-Electricity & Magnetism	4, 5	PY 242	4
Psychology	3, 4, 5	PS 101	3
Statistics	3, 4, 5	MA 150	3
Studio Art	3, 4, 5	AR 140	3
United States History	3, 4, 5	HI 111 & HI 112	6
World History	3, 4, 5	HI 103 & HI 104	6

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College Level Examination Program (CLEP) Subject Examinations	Passing Score	WSU Course Equivalent (if Equivalent)	Credits
Business			
Financial Accounting	50	BA 210	3
Information Systems & Computer Applications	50	CS 101	3
Introductory Business Law	50	BA 320	3
Principles of Accounting* No longer available but credits earned earlier can be accepted	50	BA 210 & BA 220	6
Principles of Management	50	BA 200	3
Principles of Marketing	50	BA 318	3
Composition & Literature			
American Literature with Essay	50	LASC TLC-Thought, Language, Culture; English Humanities Elective Not accepted for English major/minor	6 6
Analyzing & Interpreting Literature with Essay	50	LASC TLC-Thought, Language, Culture; English Humanities Elective Not accepted for English major/minor	6 6
College Composition	50	EN 101	3
English Composition with Essay* No longer available but credits earned earlier can be accepted	50	EN 101	3
College Composition Modular	Not Accepted		NONE
English Literature with Essay	50	LASC TLC-Thought, Language, Culture; English Humanities Elective Not accepted for English major/minor	6
Freshman College Composition	Not Accepted		NONE
Humanities	50	LASC TLC-Thought, Language, Culture; LASC CA-Creative Arts	6 6
Foreign Languages			
French Language, Level 1	50	FR 101 & FR 102	6
French Language, Level 2	62	FR 101, FR 102, FR 210, & FR 211	12
German Language, Level 1	50	Foreign Language Elective WL XXX	6
German Language, Level 2	62	Foreign Language Elective WL XXX	12
Spanish Language, Level 1	50	SP 101 & SP 102	6
Spanish Language, Level 2	63	SP 101, SP 102, SP 210, & SP 211	12
History & Social Science			
American Government	50	PO 210	3
History of the US 1: Early Colonization to 1877	50	HI 111	3
History of the US 2: 1865 to Present	50	HI 112	3
Human Growth & Development	50	PS 210 or PS 215	3
Introduction to Educational Psychology	50	ED 250 *10 hrs clinical fieldwork per department guidelines are required	3
Introductory Psychology	50	PS 101	3
Introductory Sociology	50	SO 100	3
Principles of Macroeconomics	50	EC 120	3
Principles of Microeconomics	50	EC 110	3
Social Sciences & History	50	LASC GP & USW-Global Perspectives & US & it's Role in the World; General Elective	6
Western Civilization I: Ancient Near East to 1648	50	LASC GP-Global Perspectives; History Elective	3
Western Civilization II: 1648 to Present	50	LASC GP-Global Perspectives; History Elective	3
Science & Mathematics			
Biology	50	LASC NSP-Natural Systems & Processes; Biology Elective	6
Calculus	50	MA 200	4
Chemistry	50	CH 110 or CH 120	4
College Algebra	50	MA 180	3
College Mathematics	50	Not Accepted	NONE
Pre-calculus	50	MA 190	3
Natural Sciences	50	LASC NSP-Natural Systems & Processes; Elective	3

International Baccalaureate (IB) Credit

The following equivalencies have been established for High-Level IB exams. Students who receive an IB Diploma will be invited to participate in WSU's Honors Program.

Exam	Score 4	Score 5-7
Biology	BI 101 (4)	BI 101 (4)
Business & Management	BA 1XX (3) (elective)	BA 200 (3)
Chemistry	CH 110 (4)	CH 120 (4)
Computer Science	CS 101 (3)	CS 101 (3)
Economics	No Credit	EC 110 (3) *and* EC 120 (3)
English A1 (HL)	EN 105 (3)	EN 105 (3)
Film	CM 241 (3)	CM 241 (3) *and* CM 2XX (3)
Geography	GE 102 (3)	GE 102 (3)
History	HI 2XX (European elective) (3)	HI 2XX (European elective) (3)
Information & Technology for a Global Society (ITGS)	No credit	UR 230 (3)
Mathematics	MA 200 (4)**	MA 200 (4) *and* MA 201 (4)**
Modern Languages	SP/FR/WL 101 (3) *and* 102 (3)	SP/FR/WL 210 (3) *and* 211 (3)
Music	MU 100 (3)	MU 100 *or* MU 101 *or* MU 115 (3) Consult with department.
Philosophy	PH 100 (3)	PH 100 (3) *and* PH 110 (3)
Physics	No Credit	PY 105 (3)
Social & Cultural Anthropology	SO 110 (3)	SO 110 (3) *and* SO 2XX (3)
Theatre Arts	TH 191 (3)	TH 191 (3)
Visual Arts	AR 100 (3)	AR 100 *or* AR 112 *or* AR 113 (3) Consult with department

American Council on Education (ACE) College Credit Recommendation Service (CREDIT)

Training programs in professional settings, industry, the armed forces and other institutions, offer educational opportunities that may be similar in content to Worcester State University courses. Transfer credit may be awarded for professional training programs through credit recommendations made by organizations that have evaluated such programs on the basis of college-level learning. The American Council on Education is the largest organization that evaluates training programs. Students who have completed ACE-evaluated programs, including military service, are encouraged to request an official ACE Transcript for evaluation. Students may not receive transfer credit for professional training if they have already received transfer credit for similar learning at colleges previously attended. Information on professional trainings that have been evaluated and transcript services can be found at www.acenet.edu/credit.

Pre-entrance Immunization Requirements

New first-year and transfer students must submit required health forms before registering for courses. For additional information refer to the Health Services section.

Delayed (deferred) Enrollment:

A student may apply for admission and, if accepted, decide to delay their enrollment. Students must submit a request in writing to the Admissions Office specifying which start term they intend to enroll (which may not to exceed one year from the original accepted start term). Students who request to delay their admission forfeit any merit scholarship, financial aid, and/or housing offered with the original acceptance. Requesting a delayed enrollment does not guarantee a student's later acceptance for the deferred start term.

A student's application will be reviewed in the context of the newer applicant pool. More selective admission standards may apply. Students are encouraged to supply a statement explaining their activities while not enrolled in a post-secondary institution. As part of the re-evaluation process, students will be reconsidered for merit scholarships (Fall start only), financial aid, and housing.

Admission Following Withdrawal from Worcester State or Leave of Absence

Matriculated students who fail to take a course during a calendar year will be administratively withdrawn from Worcester State. Students who wish to permanently withdraw from Worcester State or take a temporary leave of absence must complete appropriate forms in the Academic Success Center. If the withdrawal or leave of absence is filed prior to the last day to withdraw from courses for the term, "W" will be recorded on the student's record. Students who file for leave of absence or withdrawal after the last day to withdraw from courses for the term may petition if they feel circumstances warrant the recording of "W" for all courses enrolled for that term. Normally, a leave of absence is for one semester; however, a student may have up to one year to return to Worcester State. Failure to return at the specified time will result in an administrative withdrawal from Worcester State.

Re-activation of Degree Status

There are two procedures in which students can reactivate their matriculation status at Worcester State after withdrawal/non-continuous attendance/dismissal: readmission and reinstatement.

Readmission:

If students have accumulated any undergraduate, college-level credit prior to seeking reactivation of the degree status and are not applying for the Nursing and Occupational Studies majors, they should apply for readmission through the Admissions office. Applications are available in the Admissions Office (Administration Building, Room 248) and online at www.worcester.edu/apply.

Reinstatement:

If students have not accumulated any college-level undergraduate credits prior to seeking reactivation of their degree status and are not applying for the following majors: Nursing and Occupational Studies, they should apply for reinstatement directly through the Registrar's Office (Administration Building, Room 107). Deadline for Fall-July 1; Spring-November 1; Summer-April 1. It is each student's responsibility to supply and update the following documents if not already on file.

- final high school transcript
- completed proof of residency form
- official transcript of all courses completed at each post-secondary institution attended (excluding Worcester State).

Upon completion of any missing data, the student's file will be reviewed and a plan for academic persistence and success will be developed. Students then must meet with an advisor in the declared major to register for classes.

Academic Progress after reinstatement/readmission

It is expected that students must attain a minimum GPA of 2.0 for each semester following their return. Failure to maintain a 2.0 overall average will result in a second separation from Worcester State not subject to appeal.

All reinstated students follow the degree, program, and graduation requirements from the catalog in effect at the time of their reactivation, not those in effect at the time of their withdrawal. Students need to attend Worcester State for at least one semester prior to graduation certification.

Special Non-Matriculated Students

Students classified as Senior Citizens, College Academic Program Sharing (CAPS) and Colleges of Worcester Consortium may enroll as Special Students. Others may enroll up to a maximum of 11 credit hours in day classes, on a space available basis at a time designated by the Registrar. Others who wish to enroll for more than 11 credit hours in state-supported courses must be admitted to Worcester State through the Admissions Office before taking courses. Non-matriculated students may register for evening classes through the Division of Graduate and Continuing Education during their registration periods.

Admission to Non-Degree Programs

Applicants who have already earned a bachelor's degree and wish to complete a second major, including all education license programs should specifically request an undergraduate application form. Applicants who have completed a Non-Licensure program in Early Childhood Education may apply for a Non-Degree Licensure Education program. Such applicants must have a minimum of three (3) years teaching experience and have completed the equivalent of a second major in liberal arts and sciences.

Second Baccalaureate Degree

Applicants who have already earned a bachelor's degree may apply for a second baccalaureate, excluding Early Childhood Education, Elementary Education, Occupational Studies (BSOS) and Undeclared. Requirements for this degree can be found in this catalog.

Evening Undergraduate Course Offerings

Continuing Education undergraduate course offerings are available for matriculated and non-matriculated students. Matriculated students have the ability to register for evening Continuing Education classes during regular pre-registration periods for Fall and Spring semesters but may incur additional costs in tuition and fees. The Bursar's Office can assist in determining if additional costs will be incurred. During the Summer and Winter sessions, Continuing Education offers a wide variety of face-to-face and online classes. Matriculated students looking to "catch up" on credits or wanting to accelerate degree completion may take classes during these additional terms by registering and paying for classes. Continuing Education classes are available to all non-matriculated students. Instruction in Continuing Education courses is provided by Worcester State faculty and qualified adjunct faculty.

Post-Baccalaureate Pre-medical and Health Professions Program

This program is expected to meet the needs of students interested in medical, dental and veterinary school as well as those interested in pharmacy, physician's assistant, physical therapy, and optometry programs. Each student's history is evaluated and appropriate courses are advised based upon his/her specific needs. Students have access to Worcester State's Pre-medical and Health Professions Advisory Committee and, if necessary for a program, the recommendation letter process.

Students who complete thirty credits of the basic core sciences and/or other elective science courses at Worcester State University will receive a certification of completion of the program. Up to eight transfer credits will be allowed to contribute to the thirty credit total. Students will be required to maintain a 3.0 GPA to remain eligible for the program.

This program is designed for students who need the basic science curriculum either as new courses (career changers) or as repeat attempts (GPA enhancement). A GPA of 2.75 overall is required for admission to the program. Students wishing to take an advanced curriculum are advised to seek a second baccalaureate degree through the undergraduate school. The basic courses are offered throughout the academic year, primarily in the evening. Summer courses are also available. Interested students should contact the Office of Graduate and Continuing Education or Dr. Margaret Kerr, the coordinator of the program. Additional information and application materials are available at www.worcester.edu/premed.

Below is a list of the basic core courses and available electives. Since health professions programs differ in their requirements, students should contact the Pre-Med Advisor prior to registration to make sure they are taking the correct courses.

The Basic Core

CH 120	General Chemistry I (including lab)	4 credits
CH 121	General Chemistry II (including lab)	4 credits
BI 140	Introduction to Organismal Biology (including lab)	4 credits
BI 141	Introduction to Cellular and Molecular Biology (including lab)	4 credits
CH 201	Organic Chemistry I (lecture)	3 credits
CH 202	Organic Chemistry II (lecture)	3 credits
CH 203	Organic Chemistry I (lab)	2 credits
CH 204	Organic Chemistry II (lab)	2 credits
PY 221 or PY 241	Physics I (including lab)	4 credits
PY 222 or PY 242	Physics II, (including lab)	4 credits

Science and Math Elective Courses

MA 200	Calculus I
MA 201	Calculus II
MA 150	Statistics
BI 203	Genetics
CH 410	Biochemistry (including lab)
BI 161	Anatomy and Physiology I
BI 162	Anatomy and Physiology II
BI 204	Microbiology

Additional Admission Criteria for Selective Majors:

Nursing (BSN Track 1) and Occupational Studies (BSOS) are selective majors and have rigorous admission criteria and firm application deadlines which students must meet in order to be considered eligible to apply. Meeting minimum criteria and application deadlines does not guarantee a student's admission. First-year and transfer applications are processed through the Undergraduate Admissions Office. Current Worcester State students interested in changing their major should inquire directly through the host major department. Students who are competitive for admission to a selective major will have completed all appropriate pre-requisite courses and have an outstanding academic record. The following is used, along with other criteria, in considering applications to selective majors:

First-Time Applicants:

Nursing (BSN Track 1)
Early Action (First-year students only): November 15
Application Deadline: January 15
Admission Criteria: Re-calculated High School GPA equal to 3.2 or greater (on a 4.0 weighted scale) and SAT scores equal to a combined critical reading and math score of 1050 or greater or ACT Composite score equal to 22 or greater.

Occupational Studies (BSOS)
Completed Application Deadline: January 15
Admission Criteria: Re-calculated High School GPA equal to 3.0 or greater (on a 4.0 weighted scale) and SAT scores (critical reading and math score) equal to 1000 or greater or ACT Composite score equal to 21 or greater. In addition to the admission application, all required supporting documents including official high school transcript(s) and test scores must be received by the January 15 firm application deadline.

Transfer Applicants:

Nursing (BSN Track 1)
Transfer Application Deadline: January 15
Transfer Admission Criteria: Transfer applicants into Nursing (BSN Track 1) must complete prerequisite courses in English Composition I and II, Anatomy and Physiology I and II, and Psychology or Sociology before being considered eligible to apply (in progress coursework will not be considered). Students must have a minimum grade point average of a 2.75 or greater and grades of C or better in all pre-requisite courses. Meeting minimum standards does not guarantee admission and is based on space availability.

The application and all required supporting documents including official final high school transcript(s) and official college transcript(s) must be received by the January 15 firm deadline for transfer applicants. All required courses for transfer must be completed by June 1 of the year applying for admission.

Transfer applicants with questions should contact the Admissions Office at 508-929-8040.

Current Worcester State students may not change their major to Nursing. Students are encouraged to meet with their academic advisor.

Occupational Studies (BSOS)

External Transfer Application Deadline: January 15

Internal Transfer Application Deadline: February 1

Admission Criteria: Transfer Applicants into Occupational Studies (BSOS) must complete pre-requisite courses in Anatomy and Physiology I and II and General Psychology before being considered eligible to apply (in progress coursework will not be considered). Students must have a minimum grade point average of a 2.75 or greater and grades of C or better in all pre-requisite courses. Meeting the minimum standards does not guarantee admission and is based on space availability.

The application and all required supporting documents including official final high school transcript(s) and official college transcript(s) must be received by January 15 for external transfer applicants. Internal transfer occupational studies (BSOS) applicants must submit the application and all required supporting documents including official final high school transcript(s) and official college transcript(s) by February 1 to the OT department. Applications are available in the Occupational Therapy Department.

External transfers with questions should contact the Admissions Office at 508-929-8040 Internal transfers with questions should contact the Occupational Therapy Department at 508-929-8624.

Documentation of High School Diploma or Equivalency

All new incoming matriculating students must provide proof of completing high school by providing documentation of a high school diploma or equivalency: The University will accept any of the following:

- An official high school transcript sent directly from the high school stamped with the date of graduation.
- An official GED transcript sent directly from the issuing agency.
- Original high school diploma or original GED certificate brought to the Admissions Office (photocopy retained).
- For records that are unobtainable or destroyed, applicants may submit a letter from the school superintendent (on official letterhead and with high school seal) indicating date of graduation and/or completion of high school or home school education.
- If a letter from a school superintendent is not available for missing or destroyed records, students may submit a signed statement explaining lack of availability to the Director of Admissions for consideration.
- Those documents awarded from a country outside of the U.S. must be translated and evaluated to U.S. standards through a credential evaluating agency.
- The acceptability of a high school diploma is determined by an evaluation of the institution's accreditation and curriculum. A high school diploma may be accepted if recognized by the state in which it was issued as offering a curriculum consistent with state law. Certificates of completion and diplomas representing non-academic curriculum will not be accepted.

Student Right-to-Know Act

The Student Right-to-Know Act of 1990 requires Worcester State to make available to prospective and enrolled students the graduation or persistence rates of selected groups of students. This information is available for review through either the Enrollment Management or the Undergraduate Admissions Offices.

Academic Policies and Procedures

Academic Honesty

Academic integrity is an essential component of a Worcester State University education. Education is both the acquisition of knowledge and the development of skills that lead to further intellectual development. Faculty are expected to follow strict principles of intellectual honesty in their own scholarship; students are held to the same standard. Only by doing their own work can students gain the knowledge, skills, confidence and self-worth that come from earned success; only by learning how to gather information, to integrate it and to communicate it effectively, to identify an idea and follow it to its logical conclusion can they develop the habits of mind characteristic of educated citizens. Taking shortcuts to higher or easier grades results in a Worcester State University experience that is intellectually bankrupt.

Academic integrity is important to the integrity of the Worcester State University community as a whole. If Worcester State University awards degrees to students who have not truly earned them, a reputation for dishonesty and incompetence will follow all graduates. Violators cheat their classmates out of deserved rewards and recognition. Academic dishonesty debases the institution and demeans the degree from that institution.

It is in the interest of students, faculty, and administrators to recognize the importance of academic integrity and to ensure that academic standards at Worcester State University remain strong. Only by maintaining high standards of academic honesty can WSU protect the value of the educational process and the credibility of the institution and its graduates in the larger community.

What Constitutes Academic Dishonesty?

Academic dishonesty includes intentional violations of accepted standards of ethics and academic integrity as well as negligent violations of standards that the individual reasonably should have known and followed. The following is not an exhaustive list of violations but provides guidelines for evaluating common areas of concern, such as cheating, plagiarism and falsification of information. Violations of academic honesty include:

1. **Cheating,** including but not limited to:
    a. traditional cheating methods including copying on exams or assignments, letting other students copy one's own work, using crib sheets in quizzes and tests, glancing at other students' work, or giving answers to other students
    b. giving or receiving unauthorized assistance in exams, laboratory exercises or other academic assignments or attempting to do so, or using unauthorized materials or information sources on tests or assignments, including communication via cell phones or computers or use of materials stored on or accessed by computer or other digital media, or collaboration between or among more than one student on an assignment that is supposed to be done individually

c. submitting someone else's work as one's own or allowing others to claim one's own work as theirs including misrepresenting one's identity in an online course or allowing others to do so

d. obtaining from any source an unauthorized copy of a test or assignment or portion of a test or assignment, and/or disseminating such material through any means including cell phone or computer.

2. **Plagiarism**, including but not limited to:

   a. use of other people's ideas, words, research or artistic creations without giving credit

      i. submitting any work, including homework, not done by the person who hands it in and whose name is on it

      ii. submitting papers or other work purchased, copied or obtained free in whole or part from another source, including papers from the internet or from another person, including a friend or a relative

      iii. using another person's unpublished ideas without permission, taking credit for another person's unpublished ideas, or taking sole credit for the product of joint efforts with another person.

   b. improper or inadequate citation of material from books, professional periodicals, magazines, websites, unpublished reports, personal communications, images, graphic materials or other citable sources

      i. use of facts, data, or specific ideas without citing the source

      ii. inaccurate or incomplete citation of sources

      iii. quoting another's words without indicating it is a quotation

      iv. using extensive quotations in place of one's own ideas, even when cited.

   Note: standards and forms for citation vary among disciplines and even among teachers. Students should ask their teachers about the expectations for any particular course or project.

3. **Misrepresentation** or falsification of information, including but not limited to:

   a. intentionally misrepresenting information to help make a point not supported by the work including misquoting or taking ideas out of context

   b. falsifying the collection or interpretation of data in a research project

   c. citing sources not used

   d. falsifying one's qualifications, including academic background or other experience.

4. **Seeking credit for the same work** in more than one course, including but not limited to:

   a. submitting the same paper or project, or significant parts of the same paper or project, to two or more different courses without getting permission from the professors who give the grades

   b. using the same internship or fieldwork experience for two or more different courses without prior permission from the professors and internship supervisors involved.

5. **Other academic misconduct,** including but not limited to:

   a. forging, damaging or changing examinations, grades or other academic material or records including written and/or electronic material and records

   b. interfering with or damaging another student's work including homework, papers, laboratory assignments, artistic creations or research projects

c. removing or damaging academic material or equipment, including electronic data, belonging to Worcester State University or any other member of the Worcester State University community

d. deliberately making a false report of academic misconduct or covering up an incident of academic misconduct.

What Are Possible Sanctions?

If the instructor chooses to resolve this issue without referring it to the Academic Judicial Board, he or she has the power to give the student penalties such as a warning, a new assignment or test to replace the one which was not done honestly, or a failing grade on the work in question or in the class. Instructors do not have the power to assign community service or to expel the student: those penalties are in the power of the Academic Affairs Office/Academic Judicial Board only.

Typically, instructors will use these powers to deter the student from cheating in the future without branding the student as dishonest in any official record; they may warn the student that they will come forward with proof of this infraction if they hear that the student has repeated the offense. Instructors may choose to give warnings, require new work, and/or give failing grades on assignments will do so the first time a student turns in dishonest work; a failing grade in the class is usually reserved for repeat offenders and serious, deliberate offenses such as turning in work done by another student as one's own, using electronics to get answers during in-class exams, or stealing exams or answer keys before a test.

The student has the right to appeal any instructor's decision to the Academic Judicial Board which may uphold or change the instructor's decision.

The Judicial Board may assign penalties ranging from a warning to expulsion. Comprised of faculty, students, and administrators, its membership is designed to be aware of the differences between different kinds of academic dishonesty and of the strains and temptations that may lead to bad decisions.

Unless it is dealing with repeat offenders, the Judicial Board will probably respond to minor infractions with failing grades on the particular assignment in question or in the course. Deliberate dishonesty, such as use of answer keys or electronic aids during exams, theft of examination papers prior to the test, submission as one's own of work done by another student or found or purchased online, etc. should be grounds for a failing grade in the course, with community service hours in addition as a possibility.

Repeated infractions would put offenders at risk of expulsion, as would extremely serious offenses, like stealing an examination and sharing it with other students before the test or having another student take a test in one's place in an online course.

Students at risk of expulsion will be given a written warning, which they will be required to sign and return within 10 working days.

Acts that are not only dishonest, but criminal, like changing a grade through illegal access to Worcester State University computers, can be punished by expulsion without prior warning.

Undergraduate Policies and Procedures for Handling Cases of Academic Dishonesty

1. Students' Rights

a. Students will have the presumption of innocence until proven guilty.

b. Students will continue their student status unless and until sanctions are imposed at the conclusion of judicial sanctions which would limit or remove this status.

c. Students are allowed to have an advisor of their choosing at hearings of the Academic Judicial Board. The advisor may counsel the student during the hearing but may not address the Board.

d. Students are allowed to view evidence against them.

e. Hearings at the Academic Judicial Board will proceed even if the student does not appear. However, the student's absence cannot be the reason a student is found guilty.

f. Students will be notified via certified mail if a report is being made concerning them in the Central File.

g. Students may review their records in the Central File within 45 days of the day Worcester State University receives a request for access, as stated in FERPA.

h. Students may ask Worcester State University to amend a record that they believe is inaccurate or misleading. They should write to the Provost/Vice President for Academic Affairs, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading.

Students should submit to the Provost/Vice President for Academic Affairs written requests that identify that they wish to view their record(s) in the Central File. The Provost/Vice President for Academic Affairs will make arrangements for access and notify the student of the time and place where the records may be inspected.

If the Provost/VP for Academic Affairs decides not to amend the record as requested by the student, Worcester State University will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

2. Initiation

In cases involving the violation of academic integrity, students and faculty are strongly encouraged to resolve matters without resorting to official judicial proceedings. If the faculty member and student are unable to resolve the issue themselves, the chair of the department in which the course was taken should be asked to mediate. If resolution is not possible at this level, the case will go to the Academic Judicial Board (refer to 3 below).

Faculty members and appropriate administrators are strongly urged to report any violations of academic integrity to the Academic Central File.

3. Academic Central File

An Academic Central File of students proven to have violated Worcester State University's Academic Honesty Policy will be kept in the Office of Academic Affairs. Only the Provost/Vice President for Academic Affairs or his/her designee will have direct access to the Central File. A file will only be created for a student upon a case's final resolution with a faculty member, with a department chair, or with the Academic Judicial Board.

Faculty members have the option of reporting students to the Academic Central File. Reports, which are statements of resolutions of cases and not allegations, that are sent to the Academic Central File must be supported with proof of some kind. For example, the instructor may submit a copy of a plagiarized paper along with a printout of the same paper from the internet. A faculty member who reports a student for the kind of cheating that can't be proved without a camera (copying from the person in the next chair, sneaking a peak at the book in a closed-book test, asking a classmate for an answer) must provide the reasons for the accusation in writing. Students who are added to the Academic Central File will be informed of the fact in writing.

Reporting a student is not necessarily linked to a disciplinary action; the faculty member still has discretion over whether to take the case to a judicial hearing. In special cases, when the Provost/Vice President for Academic Affairs notices that a student has two

or more significant violations in the Central File, he or she can refer the case to the Academic Judicial Board, which may then initiate disciplinary proceedings against this student.

Faculty members who provide evidence that a student in their course has violated the Academic Honesty Policy may meet with the Provost/Vice President of Academic Affairs or his/her designee to find out if a student has a file, and if so, how many times he/she has been reported to the Academic Central File. Relevant information limited to the student's name and number of times he/she has been reported to the Central File may be disclosed to a faculty member to assist in making decisions regarding cases of academic honesty. The procedures by which students access these files will be the same as those for accessing their academic records. The Academic Judicial Board, in the course of deciding a case of academic dishonesty, may access a student's file. A student's files are purged according to current FERPA rules. Students' files are purged upon graduation, withdrawal, dismissal or transfer from Worcester State University. When a student's file(s) have been purged, the student will be notified in writing by certified mail.

4. Academic Judicial Board

At any point beyond the departmental level, either the student or the faculty member may elect to take the issue to the Academic Judicial Board following the procedures outlined below.

a. A student may request an Academic Judicial Board hearing:

   i. because she or he has been unable to resolve an accusation of academic dishonesty with a faculty member or the chair of that faculty member's department

   ii. in response to a notice that an Academic Central File posting is to be made.

   The student makes this request, in writing, to the Chairperson of the Academic Judicial Board, in care of the Office of Academic Affairs.

b. Any member of the Worcester State University community may report any student to the Academic Judicial Board for violations of the Academic Honesty Policy. Reports shall be prepared in writing, directed to the Chairperson of the Academic Judicial Board (in care of the Office of Academic Affairs), and submitted as soon as possible after the incident takes place, preferably within 30 days. The Chairperson has the authority to extend this timeframe on a case-to-case basis.

c. The Chairperson will determine if the complaint lacks merit and/or if it can be disposed of by mutual consent of the parties involved on a basis acceptable to the Chairperson. Such disposition shall be final, and there shall be no subsequent proceedings. If the case cannot be disposed of by mutual consent, the matter will proceed to the Academic Judicial Board.

d. All charges shall be presented to the accused student in writing via certified mail with return receipt requested; the same letter will also be sent by first class mail to the student's current address as registered with Worcester State University. The hearing shall be scheduled not less than seven or more than fifteen calendar days after the student has been notified. All parties shall receive at least seven days advance written notice of the date, time and place of the hearing. Maximum time limits for scheduling of hearings may be extended at the discretion of the Chairperson.

e. The Chairperson will schedule an Academic Judicial Board hearing.

   i. The hearing will be conducted by the Chairperson of the Academic Judicial Board, chosen by the board members.

ii. The Academic Judicial Board is comprised of two faculty members, one administrator and two students. The faculty members are appointed by the MSCA. The administrative member is appointed by the Associate Vice President for Academic Affairs, in consultation with the Provost/Vice President for Academic Affairs. The student members are appointed by the Student Government.

iii. A quorum of three members must be present to convene a hearing.

f. Hearings shall be conducted by the Academic Judicial Board according to the following guidelines:

i. All procedural questions are subject to the final decision of the Chairperson of the Academic Judicial Board present at the hearing.

ii. Hearings shall be conducted in private.

iii. In hearings involving more than one accused student, the Chairperson of the Academic Judicial Board, at his or her discretion, may permit the hearings concerning each student to be conducted separately.

iv. The complainant and the accused each have the right to be assisted by an advisor from the Worcester State University community. Advisors may counsel their respective party during the hearings, as permitted by the Academic Judicial Board. Advisors are not permitted to participate directly in the hearing.

v. The complainant, the accused and the Academic Judicial Board shall have the privilege of presenting witnesses to any violations of academic integrity. The accused and the complainant shall have the opportunity to cross-examine witnesses presented by the other. Members of the Academic Judicial Board shall have the right to question any witnesses.

vi. All hearings are closed to friends and relatives of the accused unless they were actual witnesses to the violation of academic integrity. Witnesses are excluded from the hearing except when called to testify.

vii. Pertinent records, exhibits and written statements may be accepted for consideration by the Academic Judicial Board at the discretion of the chairperson.

viii. After the hearing, the Academic Judicial Board shall determine by majority vote whether the student has violated Worcester State University's standards of academic honesty.

ix. The Academic Judicial Board's determination shall be made on the basis of whether it is more likely than not that the accused student violated the rules of academic honesty in the manner charged against him or her.

g. A written record of Academic Judicial Board proceedings shall be made by the board or its secretary. This record shall be the property of Worcester State University and will be housed in the Office of Academic Affairs. The record will state the final decision of the board, a statement of the board's findings of fact, its determination of the provision(s) of the Academic Honesty Policy, if any, that the student violated and the sanction(s), if any, imposed. The record may also include a summation of witness testimony. A copy of the final decision shall be given to the complainant and the accused.

h. Students may not be found to have violated the Academic Honesty Code solely because they fail to appear before a judicial body for a scheduled hearing. In all cases, the materials and information in support of the charges shall be presented

and considered, as the hearing will be held in the absence of the student, should he/she fail to attend.

i. In the absence of a functioning Academic Judicial Board or Academic Board of Appeals, such as during exams or during the summer and semester breaks, disciplinary hearings (under this Section 3, and the following Section 4) will be the responsibility of the Associate Vice President for Academic Affairs or his/her designee. When he/she deems it appropriate, a hearing may be postponed until the beginning of the new semester.

j. Possible sanctions that the Academic Judicial Board could impose would depend upon the severity of the offense; however, the Board could choose to uphold the original faculty decision or impose another punishment, which might include failing the course, expulsion from the major or program, or expulsion from Worcester State University.

5. Academic Judicial Board of Appeals

The purpose of the Academic Judicial Board of Appeals is to conduct procedural reviews of cases. It is not intended as an evidentiary panel. It is not the job of the Academic Judicial Board of Appeals to hear new evidence.

a. A decision reached by the Academic Judicial Board may be appealed by the accused student(s) or the complainant to the Academic Judicial Board of Appeals within five working days of the date of the decision letter. Such appeals shall be in writing and shall be delivered to the Associate Vice President for Academic Affairs or his/her designee.

b. The Academic Judicial Board of Appeals will consist of one administrator, two students and two faculty members and will be chosen in the same manner as the members of the Academic Judicial Board (see 4.e.ii. above). The administrator in this case, will be the Associate Vice President for Academic Affairs or his/her designee.

c. In cases where the student files an appeal, the complainant, and, in cases that were decided by Academic Judicial Board hearing, the Chairperson of that Board, shall be notified. In cases where the appeal is not initiated by the student, the student shall be notified.

d. An appeal is not a new hearing but is a review of the summation/record of the initial hearing and supporting documents for one or more of the following purposes:

   i. to determine whether the original hearing was conducted fairly in light of the charges and evidence presented, and in conformity with prescribed procedures

   ii. to determine whether the finding of responsibility or no responsibility is supported by the weight of the evidence

   iii. to determine whether the sanctions imposed were inappropriate.

e. When the appellant wishes to introduce new evidence, sufficient to alter a decision, or other relevant facts not brought out in the original hearing, because the person appealing did not know such evidence and/or facts at the time of the original hearing, the Chairperson of the Academic Judicial Board of Appeal (the Associate Vice President for Academic Affairs) will decide whether to instruct the Academic Judicial Board to convene a new hearing of the case. If a case is returned to the Academic Judicial Board for consideration of new evidence, all parties shall have equal opportunities to submit new material.

f. Upon completion of the appellate hearing, the Academic Judicial Board of Appeals shall promptly notify the accused student, the complainant and the chair of the Academic Judicial Board of the outcome of the appeal. Said decision(s) shall take one of the following forms:

   Appeal Upheld: the appellant's request for relief has been honored. In the case of an upheld appeal, the new findings/sanctions shall be stated;

   or

   Appeal Denied: the appellant's request for relief is denied and the finding(s) and/or sanction(s) stand.

g. In extraordinary circumstances, the Associate Vice President for Academic Affairs or his/her designee may waive the deadline for filing an appeal. The decision to waive or not to waive a deadline shall be final and shall not be subject to any appeal.

h. No disciplinary sanction shall be imposed while an appeal is pending unless the Associate Vice President for Academic Affairs determines that such action would be in the best interest of the Worcester State University community.

6. Administrative Failing Grade

In cases where the sanction for academic dishonesty is determined to be a failing grade for the course, the Registrar will be informed immediately. The Registrar will record an administrative failure. Such a grade is not subject to withdrawal or appeal. A student who receives a failing grade for a course due to a violation of academic honesty cannot eradicate that failure through the normal grade appeal process or by withdrawing from the course.

Matriculation

Matriculation is a process whereby students are admitted to Worcester State University and pursue a formal course of study leading to the bachelor's degree, second major, certificate, professional certification or master's degree.

General Requirements for the Baccalaureate Degree

Candidates for a baccalaureate degree must complete 120 semester-hour credits with a minimum overall GPA of 2.0 and a minimum 2.0 GPA or higher in the departmental and ancillary courses in their major. To receive a baccalaureate degree from Worcester State University, a student must:

- complete 30 of the last 40 credits at Worcester State University
- earn a majority of credits in the major at Worcester State University
- earn a majority of credits in the minor (if elected) at Worcester State University.

Students completing their degrees within six years must meet the degree requirements of the catalog under which they enter Worcester State University. After six years, students are subject to the degree requirements of the catalog in effect for their year of graduation.

Second Baccalaureate Degree: A student who holds a bachelor's degree from Worcester State University or another four-year institution of higher education accredited by regional accrediting agencies may be awarded a second bachelor's degree by completing a minimum of 30 additional semester hours of prescribed work at Worcester State University after matriculation into the second degree program. Twelve semester hours of the 30 must be in upper-level work in the student's major, and the student must meet all requirements for

that major. In addition, in order to be granted a second degree, the student must meet all current catalog requirements for a baccalaureate degree at Worcester State University, as follows:

- All courses from the former institution which the Office of Admissions deems usable towards fulfillment of the foundation, general education requirements, and the LASC requirements currently existing at Worcester State University will be transferred to the student's second baccalaureate program.
- All courses transferred into the student's major for the second degree are subject to the approval of the Department Chair.
- As many credits from the former institution as are deemed appropriate by the Office of Admissions will be transferred to the student's second degree program as elective credits (up to and not to exceed 90 credits).

Post-baccalaureate students who seek a second major but do not seek a second baccalaureate degree at Worcester State University will receive a letter from the Registrar certifying completion of the second major upon completion of all prerequisites to the major and all requirements of the major. **After matriculation into either post-Baccalaureate program, no additional transfer credits will be allocated as graduation credit.**

Liberal Arts and Sciences Curriculum
WSU | Pathways to Discovery

An education in the liberal arts and sciences enables students to understand their world, and it equips them to analyze, appreciate, and affect that world. With these aims in mind, the faculty at Worcester State University have designed the university's Liberal Arts and Sciences Curriculum (LASC) to ensure breadth both in the range of subjects that students will encounter and in the range of approaches to that material. In addition, the Liberal Arts and Sciences Curriculum emphasizes the fundamental abilities and attitudes that make it possible to benefit fully from a liberal education. While the specialization provided by a student's major field of study is essential to a college education, the breadth and integration provided by the Liberal Arts and Sciences Curriculum supply an invaluable context for understanding the wider world.

Given the crucial importance of languages other than English in today's global society, the University strongly encourages the study of world languages, through the majors and minors, and also through combining the requirements in Global Perspectives and Thought, Language and Culture. Students may also choose to study languages through their elective courses.

The Liberal Arts and Sciences Curriculum is aimed at achieving the following student learning outcomes. Having completed courses in the Liberal Arts and Sciences Curriculum, students will:

- Demonstrate effective oral and written communication.
- Employ quantitative and qualitative reasoning.
- Apply skills in critical thinking.
- Apply skills in information literacy.
- Display an appreciation for the interrelations among global and cross-cultural communities.
- Develop a critical understanding of the U.S. experience.
- Understand the roles of science and technology in the modern world.
- Demonstrate and value personal creative expression.
- Understand how scholars in various disciplines approach problems and construct knowledge.
- Display socially responsible behavior and act as socially responsible agents in the world.
- Make connections across courses and disciplines.
- Develop as healthy individuals – physically, emotionally, socially, ethically, and intellectually.

Core Course Requirements
Core courses may not double with content area course requirements.

Writing (up to 6 credits) **[WRI, WRII]**
Students must complete one three-credit course devoted to addressing the rhetorical abilities necessary for effective college writing and an additional three-credit course emphasizing formal academic genres, academic research skills, and the presentation of information to academic audiences. Currently EN 101 and 102 fulfill this requirement.

Students who are exempt or waived from EN 101 will have to complete EN102. Students who are exempt or waived from both EN101 and EN102 will have fulfilled the writing requirement. The core writing courses may not be taken pass/fail.

Constitutions (3 credits) **[CON]**

Students must complete one course that teaches the constitutions of the United States and the Commonwealth. Courses which meet this requirement will:

- Require students to study the Constitutions of the Commonwealth of Massachusetts and of the United States.
- Consider the historical context, addressing
  - antecedents in English law
  - idea of written fundamental law
  - context of colonial history
  - failed predecessors (the 1778 constitutions and the Articles of Confederation)
  - mechanism of drafting, ratification and amendment
  - influence of the Massachusetts Constitution on the U.S. Constitution.
- Consider political thought in contemporary society, addressing
  - how each constitution shapes modern life
  - differing interpretations, including by the courts
  - current issues related to each constitution
  - basic national, state and/or local political processes, and the rights and obligations of citizenship.

First-Year Seminar (3 credits) **[FYS]**

All first-time, first-year students will be enrolled in and must complete a first-year seminar. The first-year seminar will be a three-credit course with enrollment limited to 20 students and taught exclusively to first-year students in a seminar format. First-year seminars are listed with the LC or department prefix followed by the number 193 (LC193). Any make-up of the First-Year Seminar requirement must be successfully completed within the first 60 credits of study.

First-Year Seminars:

- Engage beginning college students and explore diverse topics that are more controversial or more narrowly focused than standard introductory courses.
- Encourage students to apply the knowledge that they acquire to address specific problems and challenges within the University, the community, and the world.
- Encourage students to be active, reflective learners.
- Include assignments or activities that orient students to and require the use of the library, educational technology, and standard methods of reference and citation,
- Encourage students to participate in student life and community activities that are part of the first-year experience.
- First-year seminars differ from other courses in that they have a limited enrollment, are designed for first-year students, and emphasize the academic tools necessary to ensure a successful Worcester State University experience.

Capstone Experience (variable credit) **[CAP]**

Capstone seminars are offered to students in their junior or senior year through their major field of study for varying credit or through a three-credit course offered within the Liberal Arts and Sciences Curriculum. Capstone seminars completed within a student's major field of study will count toward major requirements. Enrollment in capstone seminars will be limited to 20 students.

Capstone seminars:

- provide students the opportunity to demonstrate mastery of a subject area or skill
- require synthesis and integration of prior knowledge and abilities
- are designed to facilitate the transition from WSU to the world of work, professional development and/or graduate studies
- may include research, leadership and internship opportunities, artistic projects, the production of a portfolio of student work, and/or other culminating learning experiences.

Content Area Course Requirements

Students will complete courses in eight content areas. Courses in the Liberal Arts and Sciences Curriculum will not generally serve as major courses.

Creative Arts (3 credits) **[CA]**

Students must complete one course. Courses may focus on practice (a performance or studio experience in art, music, or theater) and/or studies (a critical, theoretical, or historical examination of the arts). Courses in this area:

- Encourage recognition that artistic expression varies from one society and culture to another.
- Explore different traditions, styles and historical periods in the arts.
- Promote freedom of expression and tolerance of divergent viewpoints.
- Consider the importance of aesthetics and instill an awareness of how the arts improve the quality of life.
- Enable each student to cultivate his or her creative potential.
- Teach the terminology, techniques and skills that comprise the arts in order to provide the framework for informed creativity.

Human Behavior and Social Processes (3 credits) **[HBS]**

Students must complete one course. Courses in this area:

- Develop an understanding of how factors such as market forces, politics, demographics, physical environment, and culture affect individual behavior and thinking.
- Examine political, economic and social structures and the interplay between the individual and society.
- Explore the ways in which the individual is an agent in shaping and understanding his or her own experiences.
- Consider the ways in which individual and social roles and identities are socially constructed.
- Show how the results of social research can be used to effect social change.
- Teach the differences between and appropriate uses of qualitative and quantitative research methods.

- Investigate the ways in which scientific inquiry is value-laden.
- Help students understand the ways in which the various social sciences inform one another.

Individual and Community Well-being (3 credits) **[ICW]**
Students must complete one course. Courses in this area:

- Explore the growth and development of the individual and address the interconnected dimensions of well-being.
- Study and evaluate the ways that the local, state, national, or private sectors frame and implement social policies, and the consequences of these policies for well-being.
- Examine social structures and practices such as urban and rural development, planning, funding allocations, and legislative initiatives designed to secure the well-being of the community.
- Examine the short and long-term consequences of beliefs, behaviors and policies that affect the well-being of individuals and communities.
- Address the role of prevention strategies in promoting well-being.

Global Perspectives (3 credits) **[GP]**
Students must complete one course. Courses in this area:

- Study the culture, history, or language of a nation or geopolitical area other than the U.S.
- Consider culture, power and place in phenomena such as globalization, cultural colonialism, transnationalism, and human rights.
- Investigate issues about the environment and sustainable development in phenomena such as the use of natural resources and macroeconomic problems that affect people and ecosystems around the world.
- Study governance, peace and justice in a global context.
- Analyze the international political economy in relation to governments, enterprises, societal groups and communities from different countries.
- Consider issues such as race, class, gender, age, sexuality, language, ability, indigenous populations, transnational labor and refugee migration.

Natural Systems and Processes (minimum of 6 credits) **[NSP]**
Students must complete a minimum of two courses. At least one of the courses taken in this area must have a laboratory component. At least one of the courses must be a science course. These two requirements may be met by one course. Courses in this area:

- Study physical and natural systems and processes.
- Apply scientific models, theories, and technology to problems facing society.
- Have an analytical and/or quantitative component and include interpretation, communication and/or presentation of data and results.
- Compare and contrast various modes of scientific inquiry.
- Place scientific inquiry within its historical and contemporary contexts.
- Use and reflect on the scientific method of investigation.
- Address the strengths and limitations of scientific inquiry in human understanding.
- Encourage students to become scientifically literate citizens and be able to evaluate scientific information.

Quantitative Reasoning (minimum of 6 credits) **[QR]**

Students must complete a minimum of two courses devoted to addressing the formal and numerical reasoning skills necessary to complete college level work and to use quantitative reasoning to analyze complex problems facing the world today. All students must pass the Math Placement Test at the stipulated level. In this category students must complete a course with the MA (mathematics) prefix within their first 60 credits of study (exceptions to this time frame may be necessary for transfer students). Courses in this area:

- Acquaint students with formal systems, procedures, and sequences of operations.
- Strengthen students' understanding of variables and functions.
- Apply mathematical techniques to the analysis and solution of real-life problems.
- Develop an understanding of and facility with statistical analysis, including an understanding of its applications and limitations. Courses meeting these criteria must emphasize why statistical inference works and not simply how to use statistical techniques.
- Strengthen understanding of the relationship between algebraic and graphical representations.
- Emphasize the importance of accuracy, including precise language and careful definitions of mathematical concepts.
- Understand both underlying principles and practical applications of one or more fields of mathematics.

Thought, Language and Culture (3 credits) **[TLC]**

Students must complete one course. Courses in this area:

- Explore human thought, history, culture, art, literature, and language (including world languages).
- Present the subject in the context of competing theoretical frameworks, for example, about race, gender, historiography, textual analysis, or cultural interpretation.
- Synthesize approaches from different disciplines.
- Explore problems of ethics, politics, aesthetics, epistemology, and metaphysics.
- Use original works as the primary object of study.
- Require discursive written work, including standard references and citations, for evaluation or extensive written work in a second language.

The United States and Its Role in the World (3 credits) **[USW]**

Students must complete one course. Courses in this area:

- Study cultures, histories, and social practices in the U.S., including consideration of the ways that differences in power affect different racial, ethnic, gender, and cultural groups as evidenced by readings, texts, testimony, and narratives.
- Address issues of economic and political power that shape the U.S. and the world
- Trace the roots and development of U.S. political and economic institutions at home and around the globe.
- Focus on particular aspects of U.S. culture and how understanding them helps to illuminate the larger context of U.S. society and its role in its world.

Across the Curriculum Course Requirements

Across the Curriculum courses may be met with Content Area courses, courses in the

major and general elective courses. A single course may fulfill more than one Across the Curriculum area. First-year seminars may be approved for QLAC and DAC. Capstone seminars may be approved for DAC, WAC, and/or QLAC.

Writing Across the Curriculum (3 credits) **[WAC]**

Students must complete one Writing Across the Curriculum course after completing the writing requirement (currently EN 101 and 102). Students may complete the WAC requirement in a language other than English. Placement at the 300-level in a language other than English will satisfy the prerequisite for WAC courses in that language. Courses in this area:

- Require a variety of formal and informal writing assignments. Formal writing assignments may include traditional essays and research papers, case studies, process analyses, and reports on research findings. Informal writing assignments may include journals, lab notebooks, reading responses, and in-class essay examinations.
- Offer students instruction in the conventions of writing for a particular discipline.
- Assign writing of different lengths and different formats, for a minimum total of approximately 2500 words (or ten pages) during the course of the semester.
- Provide opportunities for revision.
- Incorporate clear explanations of assignments and various approaches to instruction such as workshops, individual conferences with the instructor, and/or assignment criteria handouts.
- Offer different types of feedback, such as traditional grading and evaluation, peer review groups, self-assessment, and writing center sessions.

Diversity across the Curriculum (3 credits) **[DAC]**

Students must complete one Diversity Across the Curriculum course. Courses in this area address issues of social and cultural diversity in the United States and/or in the world. These may include differences in race, religion, ethnicity, language, national origin, gender identity, sexual orientation, regional background, abilities, and/or age. Courses in this area:

- Study historical experiences, cultural patterns, and social advantages and disadvantages of different groups within the society.
- Explore social problems such as racism, prejudice, discrimination, and exploitation as both mainstream and non-mainstream groups experience them.
- Examine the diversity within each group's experience and how such experiences are dynamic and continuously changing.
- Help students develop a sound knowledge of the methods of thinking about issues of diversity, particularly the ability to distinguish facts from interpretations and opinions.
- Include materials written by as well as about persons from diverse groups.
- Develop an appreciation/respect for members of diverse groups.
- Demonstrate how to communicate culture-specific and/or culture-general ways with diverse groups in various contexts.

Quantitative Literacy Across the Curriculum (3 credits) **[QLAC]**

Students must complete one Quantitative Literacy Across the Curriculum course. All students must pass the Math Placement Test at the stipulated level prior to enrolling in a QLAC course. Courses in this area will:

- Apply quantitative reasoning both to frame and solve problems encountered across areas of study.

- Demonstrate how quantitative literacy is embedded in everyday experiences.
- Evaluate a given problem, situation, or experiment, ask suitable questions, and draw various conclusions and interpretations through the application of quantitative reasoning.

Laptop and Technology Requirement

Entering full- and part-time first-year and transfer students are required to own a laptop computer when they arrive on campus. For more information please visit http://uts.worcester.edu.

Electives

Having met the general education requirements and those of the major (and minor, where applicable), a student may elect other courses without restriction to complete the 120 semester hours of credit necessary for graduation. Since the purpose of elective courses is to encourage exploration in diverse fields of knowledge, students are urged to take advantage of the opportunity to broaden and deepen their intellectual development.

Intent to Graduate

The degree and diploma will be granted within 60 days of the final day of examinations for the semester in which degree requirements have been met providing that students have adhered to the following deadlines for filing an Intent to Graduate form:

December completion:	Last Friday of October
May completion:	Last Friday of December
August completion:	Last Friday of May

Program

A program is an approved academic course of study whether it be a major, minor, or concentration.

Major/Minor

Major: Upon or after admission to Worcester State University, and in any case prior to the beginning of the junior year, degree seeking students declare an intent to major in a specific discipline or an approved interdisciplinary area. In general, a major is completed by earning between 30 and 48 credits with a minimum GPA of 2.0. Students may take additional electives in their major if desired. Courses are selected under the direction, and with the approval of the student's faculty advisor in the major.

Declaration: A department and/or an appropriate interdisciplinary committee administering an interdisciplinary major may establish standards for admission of enrolled students into their major and minor programs. The standards are not based solely on any GPA. They may be based on grades earned in prerequisite courses, demonstration of special knowledge and skills through test, portfolios, interviews, and other relevant criteria. Departments and interdisciplinary major administering committees must have standards approved by the All University Committee. A minimum GPA at variance with Worcester State University's policy may not be used as a standard for retention as a major or minor student within a

department and an interdisciplinary program. Transfer credits must be approved by the major department or the corresponding program administering committee.

Minor: Although not required for graduation, a minor may be completed by earning between 18 and 24 credits in a discipline other than the student's major discipline and/or in an interdisciplinary program.

Changing Major or Minor: A student wishing to change a major or minor field of study completes the Declaration/Change of Major/Minor Form at the Office of the Registrar. A request for a change in major or minor must be made in the Fall by mid-October and in the Spring by mid-March. Forms for the declaration or change of a major/minor are available at the Office of the Registrar.

Note: A student wishing to declare/change into Criminal Justice, Education, Nursing, or OT must obtain approval from the Chair of the department.

Concentration

A concentration is a specialized track within a major or an approved interdisciplinary track study. The number of credits and courses of study required to earn a concentration within a major is determined by the major department or the program administering committee.

An interdisciplinary concentration may be completed by earning between 12 and 17 credits in a specified course of study as determined by the program administering committee.

Certificate

A certificate is a course of study leading to a professional credential or certification. The number of credits or courses required is determined by the program offering the certificate.

Academic Advising

Students are assigned a faculty member from their major department to serve as their advisor in the selection of courses, changes in schedule, and all other academic matters. Undeclared students have faculty/academic advisors assigned as well. Each student meets with his/her academic advisor during the regularly scheduled advising period each semester to review academic progress and select courses for the coming semester. All advisors have office hours so the student should contact the advisor whenever information or an opinion on an academic matter is needed. Refer to the *Academic Advising Handbook* online (www.worcester.edu/handbook) or the Academic Success Center for further information.

Faculty advisors must approve all courses taken off-campus using appropriate forms available in the Office of the Registrar.

Academic Support Services

Academic Success Center

The Academic Success Center is located in the Administration Building, Room 130. It focuses on:

- advising (for new first-year students, transfer students and undeclared students)
- walk-in advising for all students
- testing-including Accuplacer and CLEP

- special first-year initiatives such as the First-Year Experience
- organization of student workshops that deal with academic issues
- tutoring for all academic subjects.

Peer Mentors: The Academic Success Center sponsors a team of Peer Mentors who can provide academic information about programs, policies, and procedures. Peer Mentors work closely with first-year students enrolled in their first-year seminar.

Tutoring Services

The aim of Tutoring Services is to increase student academic effectiveness. After a preliminary assessment, assistance is provided on a one-to-one or small group basis. These services are directed toward 100- and 200-level courses, as this is the time when students are learning how to adjust to college-level study. The focus, therefore, is on learning how to learn rather than on content area tutoring. Accordingly, tutors assist students in improving their study skills, test-taking skills, and time management skills.

Students who think they may need academic assistance in order to achieve their educational objectives should visit the Academic Success Center as soon as possible to maximize the benefit of the service.

Math Lab Services

The Worcester State University Math Lab, housed next to the Math Department (S143), is staffed with a supervisor and peer tutors with day and evening hours (Monday through Friday). Its main function is to offer students, who have not received a passing score on the Accuplacer Arithmetic and/or Elementary Algebra test, resources for skill development.

This lab offers developmental tutoring on a walk-in basis and houses the mathematics library as well as tutorial software. Any student in need of refreshing their mathematics skills, or tutoring for MA 098 and MA 099, may use this lab which has both a wireless network connection for lap-top users and several desktop computer stations. .

The Writing Center

Located in Sullivan 306, the Writing Center is a resource available free of charge to all members of the Worcester State University community. The Writing Center is staffed by graduate assistants and peer tutors who represent a variety of majors and interests. Sessions can be arranged on an appointment or drop-in basis, and the staff of the Writing Center can address basic and advanced writing needs. The Writing Center also hosts Writenet (www.worcester.edu/owl), an online writing center that offers instruction and support over the World Wide Web.

Multicultural Affairs

Alternatives for Individual Development (A.I.D.)

The Alternatives for Individual Development Program (A.I.D.) is an alternative admissions program at Worcester State University which provides educational assistance to students.

The primary focus is the first year. However, the program requires a minimum participation of two academic semesters designed by the program staff and based on individual assessment. Other services will be provided to students throughout their undergraduate experience, including academic assistance, individualized or group tutoring, assistance with financial problems and cultural enrichment.

The program actively recruits students who show motivation and desire to succeed in higher education. Included in this category are ALANA, low-income, and first-generation students.

To be eligible, students must be incoming first-year students, meet minimal admissions

requirements, be a Massachusetts resident and a U.S. citizen and/or permanent legal resident. When completing the Worcester State University application, answer "yes" to "I wish to be considered for admission to the Alternatives for Individual Development Program." Letters of recommendation from guidance counselors and high school teachers are needed to complete the application file. In some cases an interview may be required.

Upward Bound

The Upward Bound Program at Worcester State University is designed to encourage eligible high school students to persist in school through graduation and to seek a post-secondary education.

The Program actively recruits students who show motivation and desire to succeed and who are college bound. Included in these categories are: first-generation, ALANA, and low-income students.

Services include: college visits, workshops and seminars in college admissions and financial aid assistance, career counseling, individualized or group tutoring and cultural enrichment activities.

The Program has two main components—the Saturday component and the summer residential academy.

Worcester State University Honors Program

The mission of the Commonwealth Honors Program at Worcester State University is to give high-performing and motivated students opportunities to recognize and realize their academic potential and future goals. The program promotes scholarly excellence among both students and faculty through its curriculum and co-curricular programming. It builds strong community ties to sustain the intellectual and social development of its participants and to enhance the life of the University. The program is part of the Massachusetts Commonwealth Honors Program and a member of the National Collegiate Honors Council. Students are encouraged to contact the director for information regarding entrance into the program.

Program requirements include 21 credits in honors courses, which may also count toward major, minor, or LASC requirements, and attendance at co-curricular events. Students who complete an independent research project and present it in a public forum earn the additional **Commonwealth Honors Scholar** designation .

Commonwealth Honors Scholars: Successful completion of the honors courses and a senior thesis will qualify the student to become a Commonwealth Honors Scholar. The Commonwealth Honors Program is a collaboration of select Massachusetts institutions of higher education that provides the student with unique educational opportunities through state-wide conferences, shared cultural activities, and cooperative academic and research support. A student need not be a Commonwealth Honors Scholar to complete the President's Scholars Honors Program in good standing.

Dean's List (posted for matriculated undergraduate students only)

Full-time Students: Following the completion of each semester, the names of all students enrolled for a minimum of 12 graded credits excluding courses taken on a pass/fail basis and whose GPA for that semester is 3.5 or better will appear on the Dean's List. The distinction will be noted on the student's transcript.

Part-time Students: Following the completion of each semester, the same criteria for honors for full-time students will be applied to part-time day and evening students. Students must have an academic load of a minimum of six credit hours excluding courses taken

on a pass/fail basis. The names of students whose GPA for that semester is 3.5 or better will appear on the Dean's List. The distinction will be noted on the student's transcript.

Any student receiving an incomplete grade in a semester is ineligible for academic honors in that semester.

Graduation Honors

According to the degree of academic excellence, graduates may be awarded the distinctions of cum laude, magna cum laude, or summa cum laude. Students graduating with honors must attain the following cumulative GPA based on all credits earned at Worcester State University (minimum 60 credit hours for transfer and second degree students).

Cum Laude	3.5–3.69
Magna Cum Laude	3.7–3.89
Summa Cum Laude	3.9–4.00

Academic Achievement Awards Ceremony

Conducted annually, the Academic Achievement Awards Ceremony gives special recognition to Worcester State University students who excel academically. Students so honored include those achieving the highest grade point average in individual disciplines, scholarship recipients, special academic award recipients, Dean's List and honor society inductees.

Registration and Course Information

Pre-registration for returning students is scheduled in the Fall and Spring of each academic year for advance course selection. The order of registration proceeds from seniors to first-year students. **Class determination** is made at the completion of the Fall semester and at the end of summer sessions. **A student's registration is not considered official until all financial obligations are met.**

Course Numbering: The 100-level offerings are introductory or survey courses that generally do not require prerequisites. The 200-level courses are intermediate and may require prerequisite courses. The 300-level courses are advanced and require prerequisite courses. The 400-level courses are generally for seniors and include seminars, independent study, and internships. Courses at the 900 level are open only to post-baccalaureate students.

Prerequisites represent an essential body of knowledge and skills necessary for students to succeed at an acceptable level in a course and/or are required to satisfy licensing and certification standards. Specific prerequisites are required for many courses and in certain professional studies leading to licensing and certification. Prerequisites may be waived by the instructor or department chair of the department offering the course.

Corequisites are courses which support the successful completion of certain other courses when taken concurrently. When a corequisite is listed for a course, the students are advised to register for both at the same time. In some cases, prerequisite/corequisite courses may fulfill distribution requirements.

Course Credit is counted in units called semester hours. The number of semester hours carried by a particular course is indicated in the course description. Twelve to 19 semester hours of credit per semester are considered a full-time schedule of study.

Course Overload: Special permission is required for students to register for more than 19 semester hours of credit. Forms are available at the Office of the Registrar and advisor/ department and Dean's approval are required.

Course Repeat: Students in academic difficulty who wish to repeat a course must file a course repeat form with the Registrar. Only the higher of the two grades is computed in the cumulative GPA. Students will not receive credit for a course more than one time except for PE100 and MU102, 220, 225 and TH321 and may include departmental special topics courses. Both the old and new grade appear on the transcript. Course repeats must be taken at Worcester State University.

Adding or Dropping a Course: Students may add/drop courses in accordance with the deadline published in the academic calendar. It is the student's responsibility to return the completed form(s) to the Registrar's Office. After the deadline, students wishing to drop a course must follow the procedure for withdrawal.

Withdrawal From Courses: W. A student may withdraw from a course at any point up to one week after failure warnings have been issued. Choosing to withdraw is a serious matter which may affect a student's class standing, full-time status, financial aid, etc. A student considering such a step should seek advice from the instructor or the faculty advisor. To withdraw from a course, a student must obtain a Course Withdrawal Form from the Registrar's Office and follow the prescribed steps. **Mere non-attendance at class does not constitute official withdrawal and may result in a failing grade.**

In cases of academic dishonesty, the W grade may be reversed.

All "W" grades are permanently recorded on the student's transcript. **A student who withdraws from all courses will be considered withdrawn from Worcester State University, and must file a formal intent to withdraw with the Academic Success Center.**

Students who receive any form of financial aid or veterans educational benefits should consult with the respective office PRIOR to dropping or withdrawing from a course. Reducing hour credit load may adversely affect eligibility to receive financial aid or veterans educational benefits. In addition, most private insurance companies require that students be full-time (12 credits or more) to be eligible for coverage.

Quality of achievement is represented by the following letter grades with associated points per semester hour of credit.

A	4.0 - points per semester hour credit
A-	3.7
B+	3.3
B	3.0
B-	2.7
C+	2.3
C	2.0
C-	1.7
D+	1.3
D	1.0
D-	0.7
E	0.0 - no credit, included in calculation of GPA
I	a temporary grade, not computed in the GPA
P	pass/fail option; credit, not computed in the GPA
F	pass/fail option; no credit, not computed in the GPA
W	withdrawn; no credit, not computed in the GPA
AU	Audit

Grade Point Average (GPA): At the end of each semester (and/or summer session), a semester GPA is calculated by dividing the total number of credits attempted (excluding grades of I, P, F, W) into the sum of the products of points and credits for **all courses taken.**

A Cumulative Grade Point Average reflecting the entire history of a student's achievement at Worcester State University is also computed. The Cumulative GPA is a major factor in determining class membership, academic standing, and eligibility for academic honors. **Only grades earned at Worcester State University or through the Consortium Program are computed in the cumulative GPA.**

Audit Procedure Policy: Students electing to audit may attend classes but will not earn grades or be permitted to submit assignments or take examinations. No academic credit is awarded, but the student receives the benefits of course lectures and discussions. Consent of the instructor is required to enroll in a class as an auditor.

Only students who are not matriculated undergraduates at Worcester State University are eligible to audit undergraduate courses. Also ineligible to audit courses are Consortium, CAPS, dual enrollment, and foreign exchange students.

The audit option must be declared at the time of pre-registration or registration. Students cannot switch to credit-bearing status or from credit-bearing to audit status after registration. Audited courses do not count toward load for any purposes (e.g., financial aid, veterans benefits, etc.) The audit will be permanently recorded on the student's transcript.

Pass/Fail: Students may elect up to two courses per semester on a pass/fail basis. **Core writing courses and courses within major(s) and minor(s) disciplines may not be taken pass/fail, even when not applied to specific degree requirements.** Students must notify the Registrar's Office at least **four** weeks prior to the last scheduled day of classes if they intend to take a course on a pass/fail basis. Similarly, students deciding to change from pass/fail status to standard grading must notify the Registrar's Office by the same deadline, **four** weeks before the final day of classes. Once a student decides to change from pass/fail status to standard grading, it is not reversible; the letter grade stands. No more than fifteen (15) hours may be taken on a pass/fail basis. No more than two courses in any given semester may be taken pass/fail.

Independent Study: A matriculated student desiring to conduct an independent study must select an instructor and prepare a written contract containing the content and credit hours of the study. The approved contract should be submitted to the discipline during the pre-registration advising period but no later than the first week of the add-drop period. One to six hours of credit may be granted for one semester of independent study. No more than 12 credits in independent study may be granted toward the baccalaureate degree. In no event may the total number of credit hours earned in independent study at Worcester State University exceed 10% of the credit hours counted toward a Worcester State University degree. The student must provide a copy of the approved contract to the department chair, major advisor, the instructor and the Registrar's Office no later than the last day of the add-drop period.

Incomplete Grades: When circumstances (e.g.: illness) prevent a student from completing a course on time the student is responsible for requesting an incomplete. The professor may grant an incomplete provided the student had completed a substantial portion of the course requirements. The student must make arrangements with the professor to complete the course within six weeks of the beginning of the next semester. The academic calendar indicates the deadline for resolving incompletes from the previous term. If the requirements are not met within the appropriate period, the incomplete will automatically become an "E," and so recorded on the student's permanent record.

An extension of an incomplete for one semester may be granted if circumstances still prevent the student from completing the course. In such cases, the student is responsible for obtaining the approval of the professor who must notify the Registrar in writing of his/her approval prior to the end of the initial six (6) week period. With regard to the extension of an incomplete grade, **the required course work must be completed by the student prior to the beginning of the final examination period of the semester immediately following the one in which the incomplete was originally issued.** The instructor will then have five working days within which to submit a final grade to the Registrar.

Change of Grade: Once a grade has been posted to a student's transcript that grade may be changed if, and only if, an error has been made in the calculation or transcription of the original grade. Under no circumstances will a change in grade for a student be allowed because of the submission of additional work after the course has ended. No grade change may be made after the conclusion of the semester following the semester in which the grade was originally submitted.

Transcripts

Official transcripts of coursework taken at Worcester State University may be obtained by eligible students from the Office of the Registrar with the completion of a form available for that purpose, or by written request. Students may also download the transcript request form from the web site (www.worcester.edu/transcriptrequest), and forward the completed copy to the Registrar's Office. Requests must include name while attending, current name if different, Social Security number and/or student ID number, last date of attendance and whether or not the student was officially accepted into a program. Transcripts are $5 per copy. Payment must accompany the request in the form of a check made payable to Worcester State University. Transcripts cannot be ordered by telephone or fax.

International Programs

International Students

Worcester State University is authorized to host both F-1 and J-1 international students, scholars, and professors. The Office serves the Worcester State University international community in a variety of ways, including pre-attendance advising on visa issues, on-campus orientation and comprehensive support services throughout the duration of students' academic programs at Worcester State University.

All international students must have a valid student visa to travel to the U.S. and are required to pursue a full course of study at all times. Under the policy of the US Department of Homeland Security, all international students must report to the Office of International Programs after their initial entry into the U.S. and at the start of each semester thereafter. Additional information on international applicants can be found on the Admissions page.

Education Abroad

Worcester State University strongly encourages students to participate in some form of study abroad experience during their time as an undergraduate. To participate, students must have a minimum GPA of 2.7 and sophomore standing. To facilitate such opportunities, Worcester State University offers an array of domestic and international exchange opportunities. Worcester State University students can earn academic credit on both short and long-term programs throughout the year. All courses must be approved with the assistance of academic departments in advance of travel for credits to transfer back to Worcester State University. Interested students are strongly advised to communicate their intention to study abroad early in their academic career.

International Exchange Opportunities

Worcester State University has entered into multiple exchange agreements with institutions in a variety of locales including England, China, Thailand, South Korea, Portugal, and the Czech Republic. Courses are offered in English and students have the opportunity to learn the native language as well. Per the conditions of the exchange agreements, Worcester State University students pay Worcester State University tuition and fees to Worcester State University and accommodation fees to the host institution.

The National Student Exchange

The National Student Exchange (NSE) offers students the opportunity to participate in exchange opportunities with nearly 200 institutions in the U.S., Canada, and the U.S. territories enabling participating students to attend another NSE school at either the home or host school in-state tuition rate. Reciprocal tuition exchanges are available in 48 states including Alaska and Hawaii and in the three U.S. territories of Guam, Puerto Rico and the U.S. Virgin Islands. NSE offers students the opportunity to live and learn in a different academic and geographical setting for up to one academic year.

Study Abroad

Worcester State University is affiliated with a number of organizations which provide summer, semester, and academic year program options for students throughout the world. These programs are committed to developing international dimensions as an integral part of the academic curriculum and they strive for a high level of academic excellence. To qualify for participation, students must have a minimum class standing of a Sophomore. All courses must be approved by the appropriate academic departments prior to participation in the program for credits to transfer back to Worcester State University.

Short-Term Programs

Worcester State University offers a variety of short-term, one to four weeks, programs each academic year. Popular destination include: Costa Rica, Nicaragua, the U.K., Spain, and Ecuador. These programs are offered over January Break, Spring Break, and during the summer semesters. These faculty-led credit-bearing overseas learning experiences are focused and affordable and are designed to provide greater accessibility to students and to cover a breadth of academic interests and geographical destinations. All students are eligible for participation at the discretion of the faculty leader.

Intensive English Language Institute (IELI)

The Intensive English Language Institute offers students the opportunity to attain English language fluency and U.S. cultural competencies to succeed in college or university studies. IELI offers both full-time and part-time programs providing top quality English as a Second Language (ESL) instruction to international students and working professionals. Courses are not for credit.

In the Intensive ESL Program, students study academic English up to 20 hours per week to rapidly improve their fluency and competency. Classes meet in the Fall and Spring for 14 weeks and in the summer for 5 or 10 week sessions. Core courses focus on reading, writing, listening, speaking, pronunciation, grammar and preparation for the iBT TOEFL examination. The full-time program meets requirements for an F-1 student visa.

ESL classes in the Community Program meet 4-5 hours per week. Students improve their English for work, further education, or general fluency.

Placement tests are required for all students to determine the best level for IELI courses.

Standards of Progress

Matriculated students (students admitted to Worcester State University and pursuing a formal course of study leading to the bachelor's degree, second major, certificate, or professional certification) are expected to make satisfactory and steady progress toward completion of their programs.

Opportunities are available for student advisement, both within the departments and from the Academic Success Center. However, each student is solely responsible for selecting courses, which satisfy departmental requirements for a major, as well as the general requirements for graduation as described in this catalog. Students are responsible for familiarizing themselves with this information. Exemption from, or exception to, any published requirement is valid only when approved in writing by the Provost/Vice President for Academic Affairs or Associate Vice President for Academic Affairs and confirmed by the Registrar.

Attendance

All students are expected to attend and participate in all class meetings and laboratory sessions. In the event that illness or some other emergency prevents a student from attending class, the student should contact the instructor directly. Since attendance requirements differ according to the specific academic goals of each course, students should carefully check the attendance policy on the course syllabus. If there is anticipated prolonged absence, the Associate Vice President for Academic Affairs (Administration Building, Room 361) should be contacted.

Worcester State University abides by Chapter 375 of the Commonwealth of Massachusetts, An Act Excusing the Absence of Students for Their Religious Beliefs. Section 2B of this law states: "Any student in an educational or vocational training institution other than a religious or denominational educational or vocational training institution, who is unable, because of his religious beliefs, to attend classes or to participate in any examination, study, or work requirement on a particular day shall be excused from any such examination, study or work requirement, and shall be provided with an opportunity to make up such examination, study, or work requirement which he may have missed because of such absence on any particular day; provided, however, that such makeup examination or work shall not create an unreasonable burden upon such school. No fees of any kind shall be charged by the institution for making available to the said student such opportunity. No adverse or prejudicial effects shall result to any student because of his availing himself of the provisions of this section."

Academic Standing: For degree-seeking students, class membership is based upon the number of credit hours completed. Class membership determines priority for registration and participation in class events.

Class	Credit Hours Completed
First Year	0-29
Sophomore	30-59
Junior	60-89
Senior	90-120

Good Standing: To maintain good standing at Worcester State University, matriculated students must meet the minimum standards specified below.

College Credits*	Cumulative GPA
1-29	1.50
30-59	1.75
60 and over	2.00

*College credits include all credits **attempted** at Worcester State University **plus all credits accepted in transfer.** Students are reminded that only grades earned at Worcester State University or through the Consortium Program are used in determining their GPA.

Warning Status: Students will not be placed on probation status until they have attempted 24 semester hours; however, students may be placed on a **warning status** if they fail to maintain the minimum standard after attempting 12 semester hours. Students on warning status may enroll in no more than 16 semester hours. In consultation with an academic advisor, each such student will develop an academic plan/registration contract that will include such conditions as repeating failed courses, regularly scheduled advising appointments, attending workshops offered through the Academic Success Center, and recommended use of the writing center, math lab, and tutoring services.

Probation and Dismissal: Students who fail to meet and/or maintain the minimum cumulative GPA required for good standing are placed on academic probation and are subject to the following restrictions: 1) they may not participate in intercollegiate athletics; and 2) they may not register for more than 12 semester hours of credit per semester; and 3) they may not serve on any standing and ad hoc governance committees of Worcester State University.

Failure to improve the GPA and regain good standing after two regular academic semesters (Fall and Spring) will result in academic dismissal and separation from Worcester State University. Students dismissed from Worcester State University for academic deficiency may not register for or attend classes at Worcester State University until 12 months have elapsed. Readmitted students must attain a minimum GPA of 2.0 for each semester following their return. Failure to maintain a 2.0 semester GPA will result in a second separation from Worcester State University not subject to appeal. See next section regarding withdrawal/leave of absence.

Appeal of Dismissal: Students may appeal for reinstatement to continue for a third semester on probation. Appeals must be made in writing to the Chair of the Academic Progress Review Board and submitted to the Registrar within five (5) days of notification. The Academic Progress Review Board will review the written appeals. The decision of the Review Board is final.

Withdrawal from Worcester State University/Leave of Absence

Matriculated students who fail to take a course during a calendar year will be administratively withdrawn from Worcester State University. Students who wish to permanently withdraw from Worcester State University or take a temporary leave of absence must complete appropriate forms in the Academic Success Center. If the withdrawal or leave of absence is filed prior to the last day to withdraw from courses for the term, "W" will be recorded on the student's record. Students who file for leave of absence or withdrawal after the last day to withdraw from courses for the term may petition if they feel circumstances warrant the recording of "W" for all courses enrolled for that term. Normally, a leave of absence is for one semester; however, a student may have up to one year to return to Worcester State University. Failure to return at the specified time will result in an administrative withdrawal from Worcester State University.

Students who receive any form of financial aid or veterans educational benefits should consult with the respective office PRIOR to dropping or withdrawing from a course. Reducing hour credit load may adversely affect eligibility to receive financial aid, veterans educational benefits. In addition, most private insurance companies require that students be full-time (12 credits or more) to be eligible for coverage.

Reinstatement after Withdrawal/Non-continuous Attendance/Dismissal

Students reactivate their undergraduate, matriculation status through the Registrar's Office. It is the student's responsibility to supply and update the following documents if they are not on file:

- final high school transcript
- completed and notarized proof of residency form
- official transcript of all courses completed at each post-secondary institution attended (excluding Worcester State University).

When the file is complete, the student will meet with an advisor and develop a plan for academic persistence and success. If applicable, an updated evaluation of transfer credits will be done at this time. In the case of Nursing, Occupational Studies, and Education majors, an interview with the academic department will be necessary to determine reinstatement possibility in these majors.

Students readmitted after dismissal must attain a minimum GPA of 2.0 for each semester following their return. Failure to maintain a 2.0 semester GPA will result in a second separation from Worcester State University not subject to appeal.

All reinstated students follow the degree, program, and graduation requirements from the catalog in effect at the time of their reactivation. Through appropriate advising, a plan for success outlining the maximum credits applicable will be developed prior to the semester of re-matriculation.

Academic Reprieve Policy

The Academic Reprieve Policy applies to former Worcester State University students returning to complete baccalaureate degree programs a minimum of three academic years after their last completed semester at Worcester State University. This policy is designed to facilitate program completion for students whose previous academic records were so poor as to put them in jeopardy of academic probation or dismissal immediately upon readmission. A student may exercise this academic reprieve option only once.

A student meeting criteria for eligibility must file a petition form, available in the Office of the Registrar, requesting reprieve of eligible course work at Worcester State University, either at the time of readmission or before the close of the first semester of re-enrollment. A maximum of 60 credits may be applied toward graduation from the student's previous enrollment at Worcester State University. In order to be applied, those courses must have received a passing grade. Credit for courses in the student's major is contingent upon approval by the Department Chair. None of the grades associated with courses given credit under the academic reprieve policy will be calculated in the student's GPA; however, all course work will be recorded on the transcript. A student selecting the reprieve option will be required to meet degree requirements of the catalog in effect on the date of the student's application for readmission. Those electing the reprieve option may qualify for honors at graduation upon the completion of a minimum of 60 graded credits. All approved academic reprieve students should check with the Financial Aid Office to see whether their reprieve will be recognized for financial aid purposes.

Undergraduate Appeal Procedure

Prior to invoking the use of the undergraduate appeal procedure, individuals should exhaust all informal means available to resolve questions concerning specific issues related to their courses.

The appeal procedure may not be used to challenge a grade which results from a faculty member exercising usual and customary professional judgment in the evaluation of student work.

Step 1

When an issue arises in which the student believes he/she has been treated unfairly, the student shall request in writing a meeting with the instructor. In the case of an end-of-semester grade, the student shall request such a meeting no later than ten working days after the beginning of the next semester. The instructor shall arrange to meet with the student within ten working days of the receipt of the request.

Step 2

If the matter is not resolved to the satisfaction of the student at Step 1, then, within ten working days of the meeting in Step 1, the student shall file a written request to review the matter with the appropriate Department Chair.

Step 3

If, within ten working days of the receipt of the request in Step 2, the Department Chair is unable to resolve the matter to the satisfaction of all parties, then either party may, within ten working days, file a written request to review the matter with the Dean of the respective School.

Step 4

If, within ten working days of the receipt of the request in Step 3, the Dean is unable to resolve the matter to the satisfaction of all parties, then either party may, within ten working days, file a written request to review the matter with the Associate Vice President for Academic Affairs. In the case of continuing education courses or graduate courses, the appeal at Step 3 goes to the Associate Vice President of Continuing Education.

Step 5

If, within ten working days of the receipt of the request in Step 4, the Associate Vice President for Academic Affairs or the Associate Vice President of Continuing Education is unable to resolve the matter to the satisfaction of all parties, then either party may, within ten working days, file a written request to review the matter with the Provost/Vice President for Academic Affairs.

Step 6

Within ten working days of the receipt of the request in Step 5, the Provost/Vice President for Academic Affairs shall inform the student, faculty member, Department Chair, Dean, and Associate Vice President for Academic Affairs of the results of his/her review.

The appeal process ends at this point.

Enhanced Learning Opportunities

Accelerated Pharmacy Program with Massachusetts College of Pharmacy and Health Science:

Worcester State and Massachusetts College of Pharmacy and Health Science (MCPHS) have a formal affiliation agreement that admits students into an articulated program that begins with three years at Worcester State in one of four science tracks: Biology, Biotechnology, Chemistry or Natural Science, and concludes with the three-year accelerated Doctor of Pharmacy program on the College's Worcester or Manchester (NH) campus. After successfully completing the first year of required coursework in the PharmD program at MCPHS, students will earn a Bachelor of Science degree from Worcester State. The first three years at Worcester State offer a blend of liberal arts and sciences that meet both the MCPHS general education curriculum requirements and the specific science track requirements at Worcester State. Massachusetts College of Pharmacy and Health Science provides the coursework needed for the student to earn the Bachelor of Science degree from Worcester State at the end of the first year of professional study, as well as the professional education required to earn the Doctor of Pharmacy degree at the end of three years at MCPHS.

MCPHS shall accept up to ten (10) qualified WORCESTER STATE students each year into the first year of the Pharmacy Program. If more than 10 students meet the established requirements and wish to transfer under the terms of this Agreement, the 10 students determined by the MCPHS Worcester/Manchester Pharmacy Admissions Committees to be the best qualified will be assured transfer admission, with the remaining students accepted on a space available basis.

Students who qualify (at the end of three years at Worcester State) for the Accelerated Pharmacy Program with MCPHS must:

- have at least a 3.5 cumulative grade point average (on a scale of 4.0) if they entered Worcester State after Fall 2008
- have at least a 3.2 cumulative grade point average (on a scale of 4.0) if they entered Worcester State in Fall 2008
- be full-time students at Worcester State for the three pre-pharmacy years and follow one of the approved curricula
- no grades below C (not C-)
- no course repeats
- all courses completed at Worcester State
- TOEFL score of at least 213 if English is a second language.

****Students taking a reduced load for two or more semesters will be in violation of the terms of the Agreement and may lose their right to enroll in the PharmD program.

****Students who transfer into Worcester State from another college are not eligible for this program but can apply to MCPHS via the traditional application process.

Students applying to the MCPHS Accelerated Pharmacy Program must:

- Declare by November 1 of their third year at Worcester State their intent to transfer to MCPHS as a first-year Pharmacy Program student the subsequent Fall term.
- Complete an application to MCPHS via the Pharm CAS System by November 1.
- Notify both the Worcester State pre-pharmacy advisor and the MCPHS Office of Admission on the Worcester campus by November 1 of their third year at Worcester State. Students must indicate their first and second choice of campus (Worcester or Manchester).
- Send the completed application to the MCPHS Office of Admission on the Worcester campus by February 1 of their third year at Worcester State.
- Complete a successful pre-admission interview, conducted by MCPHS at the campus to which the student intends to transfer.

American Antiquarian Society Seminar: Each year the American Antiquarian Society and five Worcester Colleges—Assumption College, Clark University, College of the Holy Cross, Worcester Polytechnic Institute and Worcester State—sponsor a research seminar at the Society library. The seminar is conducted by a scholar familiar with the Society's extensive early American History collection, and the seminar topic is related to his or her field of research. Normally two students are chosen from each of the five colleges to participate. The seminar topic and research methods combine several disciplines, and students from a wide variety of majors have participated in this unusual undergraduate opportunity. Further information is available from the Department of History and Political Science.

American Chemical Society: Students may challenge Chemistry for the Allied Health Professions by contacting the Chemistry Department, New York Board of Regents. In some cases, credit can be awarded for these examinations.

Higher Education Consortium of Central Massachusetts (HECCMA): Twelve Central Massachusetts colleges, comprise the HECCMA. In addition to cultural activities, interdisciplinary programs, and other opportunities, the Consortium provides a cross-registration service whereby full-time day students of member colleges may register at no additional cost for one course per semester at another campus.

Members of the Consortium, in addition to Worcester State, are Anna Maria College, Assumption College, Becker College, Clark University, College of the Holy Cross, Mass College of Pharmacy and Health Science University, Nichols College, Quinsigamond Community College, Tufts University's Cummings School of Veterinary Medicine, University of Massachusetts Medical School, and Worcester Polytechnic Institute.

Cross registration opportunities (at no additional cost) exist only for matriculated under graduate students taking day courses at one of the member Colleges during the Fall and Spring semesters. Students must be in good academic standing to take advantage of the one course per semester cross-registration option. Student eligibility and course applicability is determined by the Registrar's Office. Further information is posted on the Consortium website — www.heccma.org.

College Academic Program Sharing (CAPS): A student enrolled at any of the nine Massachusetts State Universities may enroll for up to 30 credits at any other state university without going through formal registration procedures. Credits are automatically transferred to the student's home institution, and the student pays no additional tuition or fees. To take part in the program, degree-seeking students must have attained sophomore status and be in good academic standing at Worcester State. For further information consult the Registrar.

Department Challenge: When appropriate and with the sanction of the faculty advisor, students may request and complete a department-developed examination to translate competencies into credit. A limited number of departments offer this as an option, so consult the appropriate department chair. However, in most cases it is recommended that students explore the CLEP option.

Internships and Professional Experiences: Matriculated students in good academic standing are eligible for internship placement if they meet departmental requirements for such placement. No more than 12 academic credits may be applied toward graduation. An internship is a form of experiential learning that permits a Worcester State matriculated student to convert theory into action. An internship may be undertaken with or without the expectation of academic credit. If credit is to be granted, however, the internship must be monitored and evaluated by the appropriate Worcester State department and a grade awarded at its completion. The internship can be constructed according to any of a number of models including professional apprenticeships, work experience, field research, career exploration, socio-political action and service learning. Because students must be actively involved in the development of an internship placement—by developing a resume, preparing necessary correspondence, or being interviewed—they should contact the faculty sponsor in the semester prior to the proposed internship. The internship contract sets forth the responsibilities of each party so that each understands his or her specific role in the educational field experience. Each program is designed to accommodate and articulate the personal goals of the student, the academic goals of the department, and the needs of the participating off-campus organization. Information about available internships is regularly relayed to, and publicized in, appropriate academic departments. The following conditions apply to all internships:

- No more than 12 units of internship credit may count toward a degree.
- Students undertaking internships must be in good academic standing.
- Only juniors and seniors may undertake internships.
- A copy of the student's internship contract with the sponsoring department must be filed with the Registrar's Office.
- Students are responsible for providing their own transportation for off-campus learning experiences.

National League for Nursing (NLN) Examinations: For RNs who graduated from a diploma program, up to 21 credits may be transferred after taking and passing the NLN Profile II Mobility Exams.

New England Regional Student Program: Worcester State participates in a regional cooperative program administered by the New England Department of Higher Education. The New England Regional Student Program offers qualified residents the benefits of in-state tuition plus 50% in certain programs at any New England state university, college, two-year college, or technical institute. The purpose of the program is to expand higher educational opportunities for New England residents by making available, on an equal basis, those programs not commonly offered at every institution. Information about the program can be obtained from the Admissions Office, from any guidance counselor, or from the **New England Department of Higher Education, 45 Temple Place, Boston, MA 02111.**

Off-Campus Courses: Matriculated students may enroll in off-campus courses at regionally accredited institutions in academic disciplines that are compatible with the Worcester State curriculum. To assure applicability and transferability, matriculated students must have approval in writing from their faculty advisor and the Registrar before enrolling in courses at other accredited institutions. Copies of course descriptions from college catalogs or other publications for each course must be attached. Forms are available at the Registrar's Office (Administration Building, Room 107).

Pre-Law Program: Programs of preparation for law school are available through the Department of History and Political Science and the Department of Philosophy.

Pre-Medical, Pre-Dental, Pre-Veterinary and Pre-Pharmacy Advisory Program: Worcester State offers an advisory program for students interested in preparing for medical, dental, veterinary or pharmacy studies. Students interested in medicine or dentistry may pursue study in any of the academic majors of Worcester State. It is the obligation of the students to check with the professional school(s) to which they intend to apply for exact requirements. Nearly all medical and dental schools require one year each of the following laboratory courses: General Chemistry, Organic Chemistry, Biology and Physics. In addition, many schools require two years of a modern foreign language, one year of English (including composition), and Mathematics through Calculus. Regardless of major, students are advised to select CH 120 and CH 121, General Chemistry I and II, and either BI 140 and BI 141, or PY 221 and PY 222, or PY 241 and PY 242 in their first year.

Students interested in medicine, dentistry, veterinary medicine, optometry, podiatry or osteopathy should consult both the major advisor and the Chair of the Pre-Medical and Pre-Dental Advisory Committee as soon as possible following matriculation. Students are advised to complete their science requirements before the end of their junior year and to take the national pre-professional exam (e.g., MCAT, DAT) during the Spring semester of their junior year. During the junior year, students must arrange an interview with the Pre-Medical and Pre-Dental Advisory Committee. The current chair of the Pre-Medical and Pre-Dental Advisory Committee is: Dr. Margaret Kerr, Chemistry. Additional information is available at www.worcester.edu/PreMed.

Summer Programs: Worcester State offers a variety of undergraduate and graduate courses during the summer months. Two six-week sessions, the first beginning in late May and the second beginning in early July, provide intensive enrichment opportunities for students working toward completion of degree requirements or upgrading and enhancing professional skills. The summer schedule is usually available in March. Course listing is on website (www.worcester.edu/summer).

The Washington Center for Internship and Academic Seminars

Worcester State participates in this internship program that combines experience in public, private, or non-profit sectors in Washington, D.C. with academic learning. The internship provides a unique opportunity to explore career paths while sampling the intellectual and cultural diversity of the nation's capital. This internship must be taken for credit so it is imperative that a student meets with the faculty sponsor within his/her academic major early in the semester prior to the proposed participation.

A student's financial aid may be applied toward program costs. In addition, significant scholarship monies are possible through The Washington Center and the Massachusetts Department of Higher Education for students with a minimum GPA of 3.0 and who are residents of Massachusetts. Tuition and fees are also waived for the semester for students who meet both the residency and GPA criteria. It should be noted that scholarship/financial aid monies are awarded based on the most recent policies put forth by OSFA and the Massachusetts Department of Higher Education and are subject to change.

Each semester The Washington Center Regional Recruiter visits the campus to speak with students about the internship program. These visits are coordinated through Career Services. Interested students should contact the Career Services Office.

Reserve Officer Training Corps (ROTC)

Air Force

Worcester State students have the opportunity to participate in Air Force ROTC ("AFROTC") through the AFROTC Detachment at Worcester Polytechnic Institute. The AFROTC program is voluntary and open to all students who seek the challenge of being an officer in the United States Air Force upon graduation from college.

Four-Year Program: This traditional program is the more popular choice. The first two years are known as the General Military Course (GMC). Classes meet one hour a week and are required for freshmen and sophomores. There is no military obligation for the first two years of AFROTC unless a student has an AFROTC scholarship. Students who successfully complete the GMC compete nationwide for entry into the Professional Officers Course (POC), which meets three hours a week and is required for juniors and seniors. Officer candidates in the POC (and on scholarship) receive a nontaxable subsistence allowance of up to $500 a month. In addition, qualified officer candidates attend the AFROTC field training program for four weeks between their sophomore and junior years.

Three-Year Program: Students may also choose an accelerated three-year option, which shortens the standard four-year program by condensing the GMC from two years to one. This option gives students the flexibility to begin AFROTC in their sophomore year (or junior year with one year of graduate study).

To participate in AFROTC students must be United States citizens (or naturalized by the end of their sophomore year), of good moral character, and in sound physical condition. Students interested in AFROTC should write to the Professor of Aerospace Studies, AFROTC Detachment 340, Worcester Polytechnic Institute, 37 Institute Road, Worcester, MA 01609-2280, call 508-831-5747 or email afrotc@wpi.edu for further details and the latest information on scholarship opportunities.

Army

The Army Reserve Officers' Training Corps (ROTC), is offered by Worcester Polytechnic Institute and is available to all Worcester State students. American citizens who are physically qualified and who satisfactorily complete the entire four-year program will be commissioned in the United States Army. Graduates serve as second lieutenants in the Active Army or the reserve components. Delayed entry on active service for the purpose of graduate school is available. Military science is designed to complement other instruction offered by Worcester State. Emphasis throughout is on the development of individual leadership abilities and preparation of the student for future important leadership roles in the Army. There are two variations of ROTC available to the student who desires to participate: a four-year program, in which students participate in required military science courses and activities for four academic years. Attendance at a six-week advanced training camp is required between the third and fourth year.

The two-year ROTC program is intended for students in their second year of college who want to enroll in ROTC in their junior year. It begins with a six-week basic summer training camp, with pay, between the sophomore and junior years. Upon successful completion of basic camp, the student participates in the third year of ROTC and attends the advanced camp during the next summer. As an alternative, an enlisted member of the Army National Guard or Army Reserve who has completed basic training can qualify for the two-year ROTC Simultaneous Membership Program (SMP).

All students enrolled in the last two years of the program receive a tax-free cash stipend of $100 each month in school. Two- and three-year Army ROTC scholarships are available for students who wish to apply. The scholarship is based on the achievements of the

applicants, not the financial status of their families. The ROTC scholarship covers tuition and most required fees, paid directly to the college. It also pays directly to the student $450 per year for books and a $100 monthly cash stipend, each month in school. Both are tax free. Members of Army Reserve and National Guard may participate in the ROTC/SMP as college juniors, receiving a reserve officer commission upon successful completion of the military science requirements. SMP cadets remain members of their unit and earn E-5 drill pay in addition to the tax-free stipend of $100 per month through ROTC. Additionally, Massachusetts National Guard ROTC/SMP members receive free tuition at state schools.

Students interested in Army ROTC should contact the Professor of Military Science, Military Science Department, Worcester Polytechnic Institute, 100 Institute Road, Worcester, MA 01609, or call 508-831-5268. Offices are located in Room 28A, Harrington Auditorium.

Navy

Programs leading to a commission as an officer in the United States Navy or Marine Corps are available to all qualified Worcester State male and female students through cross-enrollment in the Naval Reserve Officers Training Corps Unit at the College of the Holy Cross. Students can participate as Scholarship or College Program (non-scholarship) students in either a four-year or two-year Naval ROTC ("NROTC")program. The basic qualifications for enrollment in the NROTC Program are United States citizenship, good moral character, and sound physical condition.

High school students, in the Fall of their senior year, can apply through the national competition for three- and four-year NROTC Scholarships. If selected, they receive full tuition, payment of most fees, and a $150 per month tax-free stipend. Along with their college degree requirements, NROTC students are required to complete one Naval Science course each semester and also participate in one two-hour weekly unit drill period. Additionally, scholarship NROTC students participate in summer training cruises after their first year, sophomore year, and junior year. The summer cruises are four to six weeks in length, with pay and allowances, and afford an opportunity for practical experience and travel. Upon successful completion of the NROTC program, graduates are commissioned ensigns in the Navy or second lieutenants in the Marine Corps and are required to serve at least four years on active duty.

First-year and sophomore students can apply for the two-year NROTC Scholarship Program during their first two years in college. If selected, they receive full tuition, payment of most fees, and a $150 per month tax-free stipend. They attend a six-week indoctrination course during the summer preceding their junior year at the Naval Science Institute at Newport, Rhode Island. Along with their remaining college degree requirements, they are required to complete one Naval Science course each semester and also participate in one two-hour weekly unit drill period during their junior and senior years. They are required to serve at least four years on active duty after commissioning.

Students can also participate as College Program (non-scholarship) students in either the four-year or two-year NROTC Program. Students apply directly to the Professor of Naval Science at the College of the Holy Cross for enrollment. The program provides military uniforms and during the junior and senior years a subsistence allowance of $150 per month. College Program students are required to complete one Naval Science course each semester and also participate in one two-hour weekly unit drill period. They also participate in one summer training cruise preceding their senior year. Once enrolled in the NROTC Program, College Program students are eligible to apply for scholarships based on their academic record and performance in the NROTC Unit. Scholarships of one, two, and three years are available.

Upon successful completion of the program, College Program students are commissioned in the Naval or Marine Corps Reserve and are required to serve at least three years on active duty after commissioning. For additional information about the NROTC Program, contact the Professor of Naval Science, Naval ROTC Unit, College of the Holy Cross, Worcester, MA 01610-2389; 508-793-2434 or nrotc@holycross.edu.

Services for Students

Student Services is a collaboration of varied offices designed to enhance each student's experience at Worcester State University. WSU offers career counseling, provides assistance for students with physical and/or learning disabilities, and presents programs for students who may need additional academic preparation for college success.

Athletics and Recreation

The Athletics and Wellness office is an integral part of Worcester State University's efforts to provide a high-quality, affordable education and supportive environment that promotes the total development of students. The staff provides students with the opportunities to grow and learn through intercollegiate varsity athletics, intramurals, and wellness programs. Participation in these activities fosters physical, mental, leadership and life skills development, while enhancing self-discipline and sportsmanship qualities.

In all of its programs, the Athletic and Wellness office is cognizant of its responsibilities as an educational support component at Worcester State University.

As a Division III member of the National Collegiate Athletic Association (NCAA), the Massachusetts State Collegiate Athletic Conference (MASCAC), the Eastern College Athletic Conference (ECAC), and single sport affiliations with Little East Conference and the Great Northeast Athletic Conference. Worcester State University offers baseball, men's and women's basketball, cheerleading, men's and women's cross-country, field hockey, football, men's golf, men's ice hockey, men's and women's soccer, softball, women's tennis, men's and women's track and field, women's volleyball and women's lacrosse.

For those students interested in competing on a less formal level, Worcester offers an intramural sports program. The program includes touch football, coed football, basketball, tennis, street hockey, softball, soccer, volleyball, and golf. Any student who wishes to participate in intramural sports, regardless of ability or past experience is urged to do so. For the recreational athlete, Worcester State University also offers a fitness center. Students may also find part-time employment through the intramural director as supervisors and officials.

Bookstore

All required course materials for classes are available at the Worcester State University Bookstore located in the Student Center. This full-service bookstore offers new and used textbooks, as well as textbook rental. To make the book selection process for classes easier, please bring a class schedule. The Bookstore also stocks school supplies, specialty books and a wide variety of gifts and clothing imprinted with the Worcester State University logo.

Used Textbooks

The Bookstore stocks many used copies of textbooks, but the supply is limited and they sell quickly. Students should shop early for the best selection of used books.

Rent-A-Text

Students have the option to use Rent-A-Text through the University bookstore saving on average half the price of a new book. Students need to complete the short rental agreement online or at the register in the store. Students must be 18 years of age and provide a valid ID and a credit card as collateral. With Rent-A-Text, students can highlight and write in the book. Normal wear and tear is anticipated. Students can pick up rental textbooks in store or order online and have them shipped to their home.

Textbook Rental Return Policy

Any student who uses the University Bookstore Book Rental Program must abide by the contact he/she signs with the bookstore. All rented textbooks are due back by the rental due date. Students who fail to return books or pay the balance due will have their accounts turned over to a collection agency. In addition, the student will not be eligible to participate in the Textbook Rental Program until he/she settles his/her debt.

Online Purchasing

Textbooks and many general merchandise items are available on the bookstore website at www.WSU.bkstr.com. Students can purchase or rent textbooks by clicking on the textbook tab, picking the proper term and selecting the course and section numbers. Online orders can be picked up at the bookstore or they can be shipped home.

Return Policy

Textbooks are returnable for one week after the first day of the semester, with receipt, provided they are unmarked and are in the purchased condition with all materials intact. General merchandise is returnable at any time with receipt.

Ways to Pay

The bookstore accepts cash, personal checks, MasterCard, Visa, American Express, and Discover, as well as the One Card. The bookstore also has gift cards available for sale both in store and online.

Book Buy Back

The bookstore will purchase books back at any time, no matter where they were originally purchased, provided there is national demand for the book, as determined by the bookstore's buying guide. The bookstore purchases books back for resale from Worcester State University students at half the new purchase price provided there is a current order and need for the book in the upcoming semester. The best time for students to sell books back is during finals when they are finished with them and the bookstore has the most-up-to-date information on the needs of the upcoming semester.

See bookstore website for hours. Bookstore Online: www.WSU.bkstr.com

Campus Ministry

Campus Ministry at Worcester State University seeks to enable students, faculty, and staff to grow spiritually in their faith journey as they work and study in the Worcester State University setting. Through interfaith programs, suppers, speakers, counseling and fellowship opportunities, the Campus Ministry seeks to bring a religious dimension into the everyday life and conversation of the Worcester State University community. The Campus Ministry House is located near Dowden Hall and is staffed by Catholic and Protestant chaplains and available clergy from various religious traditions.

Career Services

Career Services provides students with the opportunity to obtain information regarding career fields and occupations, finding out about internship opportunities, conducting self-assessment, linking career planning to academic planning, and making a successful transition from college to career or to further schooling. Career Services has a wide variety of services and resources available. Please visit the website at www.worcester.edu/**careerservices,** or visit the Career Services office in person. Appointments with a Career Counselor are available year round to currently matriculated students. Please call us with questions or to make an appointment at 508-929-8072.

Counseling Services

The Counseling Center is designed to assist students in coping with personal issues that interfere with their academic and personal development and sense of well-being. Confidential counseling is available to all currently enrolled undergraduate matriculated students. The Counseling Center offers a variety of services to include individual counseling, consultation, outreach, and sexual assault prevention and response. Specialized counseling is also available for individuals who have experienced sexual trauma at any point in their life. There is no charge for services at the Counseling Center. Walk-in appointments are available based on counselor availability, however, scheduled individual appointments are preferred. To schedule an appointment call 508-929-8072, visit in person, or email at counseling_wsu@worcester.edu. The Counseling Center is open Monday through Friday from 8:00 a.m. to 5:00 p.m. Evening counseling sessions are available by appointment.

Disability Services

Worcester State University and the Disability Services Office (DSO) are committed to providing services that will enable students who qualify under Section 504 of the Rehabilitation Act and the Americans with Disabilities Act as Amended (ADAAA) to participate fully in the activities of Worcester State University. The DSO is the primary support system on campus for students living with disabilities. Services have been established to ensure that facilities, activities, and academic programs at Worcester State University are accessible to all students.

Current and comprehensive documentation is required from all students who request services, and it must demonstrate that the student's disability substantially limits one or more major life activities. For specific documentation criteria, please visit the DSO website at www.worcester.edu/dso. Accommodations and services are individually determined based on the functional limitation(s) that are identified by the diagnostic evaluation and during the intake interview.

An intake appointment is necessary to officially register with the DSO to review documentation and subsequently receive reasonable accommodations. Once registered with the DSO, it is the responsibility of the student to request accommodations on a semester-to-semester basis. A learning specialist, who provides time management, organizational, self-advocacy and academic strategies, is available to students registered with the DSO.

Please contact the DSO for more information [located on the first floor of the Administration Building, Room 131], telephone: 508-929-8733, fax: 508-929-8214, email: dso@worcester.edu, or web: www.worcester.edu/dso.

Health Services

The Health Services Office is located in Sheehan Hall. During the academic year a full-time nurse practitioner, two part-time practitioners, and a part-time physician staff the office. Office hours are available on the web at www.worcester.edu/HealthServices or by calling 508-929-8875. When the Health Services is closed, emergencies are referred to Worcester State University Police.

Services include acute and routine medical care, health screenings, and specialty referral. Treatment is completely confidential. Students' health history forms remain on file in this office, and health insurance brochures are available.

Health Forms and Immunization

Each full-time undergraduate and graduate student, and all full and part-time students in health science programs involving patient contact (Nursing, Occupational Studies, and Communication Sciences and Disorders) must present evidence of immunization in order to register for courses. Massachusetts law specifies the following immunizations: 1) two doses of measles, mumps and rubella vaccine given at least one month apart beginning at or after 12 months of age; 2) one dose of tetanus/diphtheria/pertussis (Tdap) is required, if it has been 5 years or more since the last dose of tetanus/diphtheria (Td); 3) three doses of Hepatitis B vaccine; 4) All newly enrolled full-time resident students must be immunized with the Meningococcal vaccine within the last 5 years or the student/parent/legal guardian may sign the Meningococcal Information and Waiver Form developed by the Massachusetts Department of Public Health; and 5) a history of varicella (chicken Pox) disease verified by a health care provider, or two doses of Varicella vaccine given at least 1 month apart beginning at or after 12 months of age. All international students must have proof of a negative mantoux test performed in the USA. In the case of positive test results, evidence of a negative chest x-ray is required. Mantoux testing (PPD) is also available at Student Health Services for a minimal fee. A copy of an immunization record from a school in the Commonwealth indicating receipt of the required immunizations may be presented; or in the case of measles, mumps, rubella, Hepatitis B, or varicella, laboratory evidence of immunity. The law provides for medical and/or religious exemptions. Provision is also made to allow students to register on condition that the required immunizations are obtained within thirty days of registration.

Students must submit the Worcester State University Report of Medical History form, completed by a physician, in order to register for courses. All resident students must have a complete Worcester State University Health Form in order to move into the residence halls.

Health Insurance

The Commonwealth of Massachusetts requires that students must be covered by health insurance under their own policy or purchase the Worcester State University health insurance plan. Health insurance is required for undergraduate students if they register for nine (9) or more semester hours of credit. Coverage for graduate students is required if they register for seven (7) or more semester hours of credit.

At the time of Fall and Spring registration, all students will be enrolled in and charged for the Worcester State University Student Health Insurance Program. Students who do not wish to participate in Worcester State University's plan must return the completed waiver request form **that is enclosed with their bill.** They may also waive the insurance online at www.universityhealthplans.com. Both the completed waiver form and proof of insurance coverage should be returned with payment of their bill to the Bursar's Office. Students who enroll only in summer session courses are not required to participate.

Dining Services

Worcester State University Dining Services is managed by Chartwells, a Division of Compass Group North America. Chartwells is proud to present the "Pulse on Dining" at Worcester State University. It is an unforgettable dining experience; passion and practicality; ingenuity and sensibility. Great food and exciting environments combined with pride of service transform the ordinary into the unexpected.

Locations and Hours of Operation

There are six dining locations on campus Sheehan Hall, The Food Court, Woo Cafe, LRC Starbucks Café, Outtakes C-Store and Java Junction. To find out about hours of operations, menus, prices, specials, and upcoming events go to www.dineoncampus.com/wsu.

Meal Plans

Chartwells offers a wide variety of meal plans to both resident students and commuters. Resident students can choose from 19 meals, 14 meals, 10 meals, 7 meals and a 65 block plan for students with 90 credits or more. Chartwells also has a mandatory $150 commuter dining dollar plan for all first-year students, sophomore, junior and first-time transfer commuter students. All meal plans only last a semester. To find out more information about meal plans, visit www.dineoncampus.com/wsu.

Residence Life and Housing Services

Mission

Residence Life and Housing is committed to providing inclusive living and learning experiences that enhance resident engagement in their own development and academic success. Students may choose to live in one of four residential facilities on campus: Chandler Village; Dowden Hall; Sheehan Hall or Wasylean Hall.

Residence Life and Housing offers several special housing opportunities. First year students who are majoring in Nursing, Occupational Therapy, and Communication Sciences and Disorders as well as Eco-House for those interested in sustainability and green living and Spanish House for those interested in learning about Spanish language and culture. All have the opportunity to live together on the same floor in Dowden Hall. First year Honors students also have the opportunity to live together. In addition, WSU offers a program called CLEWS (Community & Leadership Experience at Worcester State) that offers students the opportunity to live together, take classes together and participate in activities that focus on community service and leadership.

See section on Room and Board, for additional information.

Office of Student Involvement and Leadership Development

The Office of Student Involvement ("OSILD") is located on the 2nd floor of the Student Center and provides a co-curricular program to the WSU student that enhances their overall educational experience. Coupled with their intensive academic program, the co-curricular program allows the student to get the most out of their college experience. Through participation in leadership training, clubs and organizations, and part-time job opportunities, the student benefits by getting real world experience in planning and implementing their own programs. These experiences allow the student to gain valuable life lessons such as time-management and event planning as well as other leadership skills.

Students are encouraged to participate in at least one co-curricular activity during their time at WSU. There are over 25 active student organizations on campus including groups such as Student Events Committee, Third World Alliance, Student Government, Equestrian team, Dance Team, Dance Company, Active Minds, Enactus, WSUR Radio, WSU Pride Alliance, Campus Ambassadors and many others. Leadership training is also provided and encouraged for all members of student organizations to improve their leadership skills and prepare for life after WSU. OSILD hires up to 60 students per year in the various work areas within the Student Center. Hiring is done at the end of April each year in areas such as the Information Desk, Print Center, Living Room, Student Managers, Secretarial Staff and Program Assistants.

OSILD also provides many opportunities for commuters to get involved on campus. The Commuter Services Office was developed specifically to work with commuters to get their voices hears as well as provide unique programming opportunities. The Commuter Advisory Board ("CAB") is a major student organization supporting the voice of commuter students and plan fun events for the entire campus community with particular emphasis on commuter students.

The New Student Orientation Program also resides with the OSILD office. This includes planning and implementing first year student, parent and transfer orientations throughout the year and employs 28 students as Orientation Leaders.

Veterans Service

Worcester State University proudly welcomes student veterans. Veteran's have provided a noble and crucial service, and for that, Worcester State thanks you. Worcester State is committed to helping veterans meet their educational needs by providing information, services, and support.

Certifying Official for Veterans Benefits

The Certifying Office for Veterans Benefits, which handles all aspects of Chapter 33, the Post-9/11 Bill, and the Montgomery GI bill, contact at WSU is:
Cherie Milosh, Certifying Official (cmilosh@worcester.edu)
Registrar's Office, Administration Building, Room 107, 508-929-8773

The Registrar's Office can also provide general information of interest to veterans and dependents of veterans enrolled at WSU. Spouses and dependents of 100 percent disabled or deceased veterans wishing to inquire about possible veterans' benefits should contact the Registrar's Office.

Director of Veteran Services

Your dedicated contact for Services at WSU is:

Alan Jackson (ajackson@worcester.edu), Student Center, 3rd Floor, 508-929-8884

Once a veteran has been accepted to WSU, and the benefits are certified, the Office of Veterans Services will assist in the transition to the academic environment. On-campus and off-campus resources are available and coordinated through this office. The aim is to ensure that veterans are successful in completing the requirements as degree seeking students.

University Police Department

The Worcester State University Police Department's main priority is to provide the safest and most secure environment possible for the students, faculty, staff and visitors that comprise the institution's community. WSU believes that safety is everyone's responsibility and encourage students, faculty and staff to engage in community policing and to report any suspicious activity to Worcester State University Police. Policing is provided 24-hours

a day throughout the calendar year by a full-time staff of sixteen sworn officers and three residence hall security officers. Worcester State University Police officers enforce the rules and regulations of Worcester State University in conjunction with applicable state and federal laws. The department also provides crime prevention programs and seminars scheduled at intervals throughout the year as well as ad hoc programs when requested by any constituent of the Worcester State University community. The Worcester State University Police and Parking Clerk's offices are located on the first floor of Wasylean Hall. The University Police may be reached by visiting www.worcester.edu/police or by calling 508-929-8911.

The Center for Service-Learning and Civic Engagement

The Center for Service-Learning and Civic Engagement was established in the Spring of 2006 by a group of distinguished faculty at Worcester State University. The mission of the Center is to challenge students and faculty to investigate social problems by examining their root causes in the classroom while simultaneously addressing them in the community. To accomplish this successfully, students and faculty are encouraged to work collaboratively with community partners to design effective research and service projects.

Many faculty members and departments within WSU develop projects that involve faculty, staff, and students in reciprocal partnerships with public, private and non-profit organizations in communities to address critical social issues and align curriculum, scholarship, research and creative activity with the public good. The hope is that higher education institutions engender students' civic learning through participation in civic engagement, academic coursework, extracurricular activities and off-campus programming. The ultimate goal of civic learning and civic engagement is to prepare individuals for effective democratic participation, which in turn promotes growth of healthy communities, global economic vitality, social and political well being, and democratic human interactions.

Faculty, staff, students and community partners needing support in civic learning and engagement practices are invited to contact Dr. Mark Wagner at 508-929-8635 or at WSU_CSLCE@worcester.edu

Discipline Information

University Switchboard: 508-929-8000 **Web Site: www.worcester.edu**

Discipline	Location Sponsoring Department	Phone Departmental Website	Fax
Art	Learning Resource Center (LRC325) Visual Performing Arts	508-929-8145 www.worcester.edu/vpa	508-929-8166
Biology	Science & Tech Bldg (ST310) Biology	508-929-8569 www.worcester.edu/biology	508-929-8148
Biotechnology	Science & Tech Bldg (ST310) Biology	508-929-8569 www.worcester.edu/biology	508-929-8148
Business Adm.	Sullivan Academic Center (S203) Business Administration & Economics	508-929-8091 www.worcester.edu/business	508-929-8048
Chemistry	Science & Tech Bldg (ST410) Chemistry	508-929-8583 www.worcester.edu/chemistry	508-929-8171
Communication	Learning Resource Center (L332B) Communication	508-929-8829 www.worcester.edu/communication	508-929-8170
CommSci Disorders	Science & Tech Bldg (ST115L) Communication Sciences & Disorders	508-929-8055 www.worcester.edu/csd	508-929-8175
Computer Science	Science & Tech Bldg (ST110) Computer Science	508-929-8832 www.worcester.edu/cs	508-929-8156
Criminal Justice	Learning Resource Center (L120) Criminal Justice	508-929-8417 www.worcester.edu/cj	508-929-8426
Economics	Sullivan Academic Center (S203) Business Administration & Economics	508-929-8091 www.worcester.edu/business	508-929-8048
Education	Sullivan Academic Center Education (S226, S227, S218)	508-929-8671 www.worcester.edu/education	508-929-8164
English	Sullivan Academic Center (S303) English	508-929-8154 www.worcester.edu/english	508-929-8174
French	Sullivan Academic Center (S303) World Languages	508-929-8154 www.worcester.edu/worldlang	508-929-8174
Geography	Science & Tech Bldg (ST410) Earth, Environment & Physics	508-929-8583 www.worcester.edu/eep	508-929-8171
Health	Science & Tech Bldg (ST110) Health Science	508-929-8832 www.worcester.edu/health	508-929-8156
History	Sullivan Academic Center (S327) History & Political Science	508-929-8162 www.worcester.edu/history	508-929-8155

Discipline	Location Sponsoring Dept	Phone Departmental	Fax Website
Math	Sullivan Academic Center (S145) Mathematics	508-929-8912 www.worcester.edu/math	508-929-8197
Music	Learning Resource Center (LRC325) Visual Performing Arts	508-929-8145 www.worcester.edu/vpa	508-929-8166
Natural Science	Science & Tech Bldg (ST410) Earth, Environment & Physics	508-929-8583 www.worcester.edu/eep	508-929-8171
Nursing	Science & Tech Bldg (ST222) Nursing	508-929-8129 www.worcester.edu/nursing	508-929-8168
Occ. Studies	Science & Tech Bldg (ST210) Occupational Therapy	508-929-8624 www.worcester.edu/ot	508-929-8178
Philosophy	Sullivan Academic Center (S316) Philosophy	508-929-8406 www.worcester.edu/philosophy	508-929-8105
Physical Education	Science & Tech Bldg (ST110) Health Science	508-929-8832 www.worcester.edu/health	508-929-8156
Physics	Science & Tech Bldg (ST410) Earth, Environment & Physics	508-929-8583 www.worcester.edu/eep	508-929-8171
Political Science	Sullivan Academic Center (S327) History & Political Science	508-929-8162 www.worcester.edu/history	508-929-8155
Psychology	Sullivan Academic Center (S241) Psychology	508-929-8159 www.worcester.edu/psychology	508-929-8172
Sociology	May Street Building Sociology	508-929-8408 www.worcester.edu/sociology	508-929-8177
Spanish	Sullivan Academic Center (S303) World Languages	508-929-8154 www.worcester.edu/worldlang	508-929-8174
Theatre	Learning Resource Center (LRC Suite 325) Visual Performing Arts	508-929-8145 www.worcester.edu/vpa	508-929-8166
Urban Studies	Sullivan Academic Center (S129) Urban Studies	508-929-8940 www.worcester.edu/urbanstudies	508-929-8144
Visual/Perform Arts	Learning Resource Center (LRC Suite 325) Visual Performing Arts	508-929-8145 www.worcester.edu/vpa	508-929-8166
World Languages	Sullivan Academic Center (S303) World Languages	508-929-8154 www.worcester.edu/worldlang	508-929-8174

WORCESTER STATE UNIVERSITY

Financial Information

The schedule of fees, tuition, methods of payment and refund policies are those in effect at the time of publication. They are subject to change without notice.

Tuition and Fees

Tuition and fee schedules are presented separately for undergraduate day programs, and evening undergraduate, graduate and summer programs. Certain students may be eligible for tuition waivers. Information about eligibility requirements can be found in the section on financial aid.

Undergraduate State-supported Programs

In addition to the non-refundable application fee of $50 for Commonwealth residents, $50 for nonresidents, students must upon acceptance pay a $75 non-refundable tuition deposit that will be credited towards tuition upon matriculation and an orientation fee for $75. Students are billed for all semester charges following completion of registration.

Payment may be made by check, money order, or credit card (MasterCard, Visa, Discover, American Express). If payment is made by check, the cancelled check will serve as the student's receipt. If a student remits payment with a check that is returned because of insufficient funds, he or she must make any future payments to Worcester State in the form of a certified check, bank check, or money order. **A returned check fee of $25 will be imposed for each instance of a personal check in payment of any Worcester State charge that is returned not honored.** Students will incur all collection fees if Worcester State must place their accounts with a collection agency and with the Commonwealth of Massachusetts for intercept of other State payments (tax refunds, etc.).

Monthly payment plans through external agencies are available for families who wish to avoid a large outlay of cash at the beginning of each semester. For further information, contact the Student Accounts office.

Non-Payment Reinstatement Policy

Payment in full is required by the due date specified on the student bill. Students whose accounts are not paid in full will be subject to cancellation of class enrollment. Students who have not paid their bill in full will receive a non-payment registration hold. Further, if the account remains unpaid after the add/drop period, the Blackboard access will be suspended until paid along with a $75.00 reinstatement fee.

If after the suspension period, the account remains unpaid, the entire student schedule will be deleted and reinstatement into those courses will not be allowed.

Tuition and fees are subject to change by vote of the Legislature, Department of Higher Education, or Board of Trustees.

Tuition Surcharge

Students enrolled in credits that result in course registration in excess of 118% of academic degree program requirements will be assessed a tuition surcharge. These students are required to pay a surcharge of $235 per credit hour in excess of the 118% limit. Transfer and continuing education credits are not included in total credit hour when determining who will be assessed the surcharge.

Worcester State University
Affordability/Accessibility Disclosure Statement
2014 – 2015

Annual Department of Higher Education

Affordability/Accessibility Disclosure Statement

One of the benefits of being part of public higher education in Massachusetts is the substantial subsidy students receive to enroll in Worcester State. The annual cost information below is provided about the "average" student as a way of showing the amount of this subsidy.

Full Operating Cost (per full-time student)	$ 17,109
Less: State Operating Subsidy	(5,762)
= Tuition and Mandatory Fees (based on 30 credit hours)	11,3477
Add: Average Residence Hall Fees	10,970
= Cost of Attendance Estimate	22,317
Annual Aid Available to Students	
Less: Average Annual Student Financial Aid	$ (9,455)
= Net Direct Price to Student	12,773

Tuition and Fees – Fall 2014/2015

Undergraduate Day Division*	Annual	Per Semester	Per Cr. Hour
Cost for Full-Time In-State Student	***$8,557.00***	***$4,278.50***	***$356.54***
Tuition:			
MA Resident	**$ 970.00**	**$ 485.00**	**$ 40.42**
Non-Resident	7,050.00	3,525.00	293.75
N.E. Regional	1,455.00	727.50	60.63
Fees:			
General Fee	6,889.00	3,444.50	287.04
Student Activity Fee	72.00	36.00	3.00
Student Health Services Fee	110.00	55.00	4.58
Capital Improvement Fee	516.00	258.00	21.50
Total Fees	**$7,587.00**	**$3,793.50**	**$ 316.12**
Residence Halls:			
Residence Hall Fee			
Chandler Village I	$7,390.00	$3,695.00	
Chandler Village II	$7,390.00	$3,695.00	
Dowden Hall	7,090.00	3,545.00	
Single (Additional charge)	400.00	200.00	
Wasylean Hall–single	8,180.00	4,090.00	
Wasylean Hall–double	7,780.00	3,890.00	
Sheehan Hall	7,600.00	3,800.00	
Residence Activity Fee	50.00	25.00	
Tech Access Fee	220.00	110.00	
Resident Parking Fee–garage	100.00	50.00	
Board	3,520.00	1,760.00	
Damage Deposit (1st Semester)		100.00	
Other:			
Health Insurance	$1,854.00	na	
Orientation Fee (New Students)	75.00	na	
Commuter Meal Plan	300.00	150.00	

Division of Graduate and Continuing Education

Tuition:		
Undergraduate		$130.00
Graduate		150.00
Fees:		
Administrative Fee		
Undergraduate		$ 95.00
Graduate		95.00
Capital Improvement Fee		21.50
Other:		
Student Teaching	$ 75.00 per course	
Lab Instruction	60.00 per course	
Art Model Fee	25.00 per course	
Applied Music Fee	260.00 per course	
Application Fee	50.00 per item	
Transcript Fee	5.00 per item	
Field Work Supervision		$ 15.00
Internship		15.00

**Undergraduate Day division courses are offered M-F, 8 a.m. - 4 p.m.*

*** Undergraduate courses in the Division of Continuing Education are offered at 4 p.m. M - F, Sat/Sun and on-line*

Room and Board

Students admitted to Worcester State as resident students will be notified by the Director of Admissions. The information will be made available to the Residence Life Staff and subsequent correspondence regarding residence hall assignments should be sent to the Office of Residence Life and Housing. First-year residents, including first-year transfer students, are not permitted to have cars on campus.

Housing is guaranteed ONLY for the specified academic year for which a student signs an occupancy agreement.

Students residing in campus housing are assessed a room fee and a food service fee each semester. All students residing on campus are required to purchase a food service plan for the academic year. Upon acceptance, each resident student must pay a $150 non-refundable room deposit and a $100 damage deposit:

For First-Year and Transfer Students

1. A separate check for $150 (non-refundable) must be submitted to the Admissions Office. Payment of this deposit and the resident's receipt of an agreement signed by Worcester State will reserve a space for occupancy; half of the deposit is applied to the room charge for each semester.
2. The $100 damage deposit will be billed with room rent.

For Returning Residents

1. A $150 room deposit (non-refundable) along with a signed License Agreement Form must be submitted at the time of room selection for the following year; half of the deposit is applied to the room charge for each semester.
2. The $100 damage deposit will be billed with room rent.

Food Service Plan: The food service plan is a board plan that permits the user to purchase a specific number of meals per week. Resident first-year students, sophomores, juniors, resident transfer students, and students residing in Dowden Hall are required to be on the full board plan for one academic year. This plan ($1,760 per semester) was designed to meet the needs of those students who plan to eat all their meals on campus. All other residents are required to purchase one of three block plans. The food service is available to meet with students to develop an appropriate food service plan. These plans are also available for commuter students.

Waiting List Procedure: First-year and transfer students may submit to the Admissions Office a $150 room deposit to be considered for room assignment. All other students may submit to the Residence Hall Office a $150 room deposit along with a signed License Agreement Form to be considered for room assignment. Students' names will be placed on a waiting list until a room becomes available; assignments will be made on a first-come, first-served basis.

Evening Undergraduate, Graduate, and Summer Programs

Tuition for undergraduate courses is currently $130 per semester hour of credit. Tuition for graduate courses is currently $150 per semester hour of credit. Tuition is payable at the time of registration and may be made by bank check, money order, personal check, or credit card (MasterCard, Visa or Discover); cash will not be accepted.

Fees are charged and payable when and as applicable:

General Fee	$ 95.00 — per credit
Capital Improvement Fee	21.50 — per credit
Parking & Pedestrian Access Fee	3.00 — per credit
Transcript	5.00 — per copy
Rush Transcript	10.00 — per copy
Laboratory Instruction	60.00 — per course
Nursing Clinical	320.00 — per course
Field Work Supervision/Internships/ Teacher Education Practicum	15.00 — per credit hour

Tuition and fee charges are subject to change by the Board of Trustees.

Course Cancellation/Processing of Tuition Refunds
Worcester State reserves the right to cancel any course for which there is insufficient enrollment. Students may transfer to another course by completing appropriate forms in the Registrar's Office. Processing of tuition refunds takes two to four weeks. Refunds are sent to the student at the address of record.

Student Health Insurance

Undergraduate degree seeking students enrolled in nine (9) or more credits per semester, and graduate degree seeking students enrolled in seven (7) or more credits per semester are required by State regulation to carry individual health insurance coverage. Students without such coverage will be billed a health insurance premium (currently $1,845 per year) for mandatory enrollment. Students who already have appropriate coverage must complete a waiver of insurance at the time of payment (before the first day of classes) in order to waive the mandatory insurance premium. Any student not completing a waiver will be billed for insurance. This charge may not be adjusted, and is non-refundable after the add/drop period.

General Worcester State Refund Policy

Applicability
This refund policy applies to all full- and part-time students enrolled in regularly scheduled courses at Worcester State other than those attending Worcester State for the first time (in the current academic year) and receiving financial aid. This policy applies to all tuition, room, board, fees, and other standard billed charges.

Withdrawal Requirements
All matriculated students, undergraduate and graduate, who wish to withdraw from Worcester State must do so in writing to the Registrar's Office on the prescribed form. The official date of withdrawal is that on which the completed form is received and stamped by the Registrar.

All withdrawals from courses — rather than withdrawal from Worcester State entirely — must be done in writing to the Registrar's Office, following the procedures established for that purpose.

Refund Policy
Refunds for withdrawal from Worcester State or withdrawal from courses will be made based on the following schedule if official notice of withdrawal has been received in writing and certified by the Registrar:

1. Prior to the first day of classes, or within the official add/drop period
   - Full refund of all tuitions and fees paid
2. After the official add/drop period
   - No refund of any tuitions or fees paid (unless registration is cancelled by Worcester State)

3. Room Charge (if applicable)
   - A full refund of room fees, less the $150 room reservation deposit will be made if intention to withdraw is received by the Director of Housing in writing at least 30 days prior to the beginning of the semester, **and Worcester State is able to fill the vacancy thus created.**
   - A pro-rata refund of room fees will be made if intention to withdraw is received by the Director of Housing in writing prior to November 1st (Fall semester) or April 1st (Spring semester), **and Worcester State is able to fill the vacancy thus created.**
   - The Housing Contract is for the term of one (1) full academic year, unless otherwise specified in writing. To terminate this agreement, for any reason other than terminating his/her status as a student of Worcester State, a student must petition for release with the Director of Residence Life. Such release is not guaranteed, **and Worcester State reserves the right to deny requests to terminate or cancel the agreement.**

Return of Title IV Funds

Refund Policy for Students Who Receive Federal Financial Aid

Applicability
This refund policy applies only to all full- and part-time students enrolled in regularly scheduled courses at Worcester State who are receiving Federal Title IV Financial Aid.

This policy is mandated by federal regulation.

Withdrawal Requirements
All matriculated students, undergraduate and graduate, who wish to withdraw from Worcester State must do so in writing to the Registrar's Office on the prescribed form. The official date of withdrawal for this refund policy is the date that the student begins the official withdrawal process or the date that the student officially notifies Worcester State of his or her intent to withdraw.

Refund Policy
Refund of Federal Title IV Financial Aid will be based on the date a student completely withdraws from Worcester State as described above. During the first 60% of the semester or summer term a student earns Title IV funds in direct proportion to the length of time he or she remained enrolled. A student who remains enrolled beyond the 60% point earns all aid for the semester or summer term.

The percentage of the semester or summer term that a student remains enrolled is derived by dividing the number of days a student remains in attendance by the number of days in a semester. Calendar days are used but breaks of at least five days are excluded from both the numerator and the denominator.

Unearned Federal Title IV aid other than Federal Work-Study must be repaid in the following order:

Federal Unsubsidized Stafford Loan
Federal Subsidized Stafford Loan
Federal Perkins Loan
Federal Parent Loan
Federal Pell Grant
Federal Supplemental Educational Opportunity Grant
Other Title IV programs

Students must repay 100% of unearned loans according to the terms of their Promissory Note. Only 50% of unearned grants must be repaid within 30 days of withdrawal from Worcester State.

Financial Aid

General Information

All students are encouraged to apply for financial aid to help them meet their educational costs. To receive financial assistance from the University, students must be enrolled in a degree-granting or federally-approved certification program at Worcester State University. Second-degree students are eligible for Federal Loans and graduate students are eligible for Federal Loans and Federal Work Study funds. Applicants must also meet all Federal eligibility requirements and must be in good academic standing.

Financial aid is awarded to students with demonstrated financial need. Need is the difference between the total cost of college attendance (including reasonable costs for room, board, books, transportation, and other personal expenses) and the expected family contribution. Non-need based financial aid is available through several loan programs.

Complete information on financial aid programs, application procedures, and the award process is available in the Worcester State University Financial Aid Guide on the Financial Aid Office website at www.worcester.edu/financialaid. Applicants to the University, current students, and their families should feel free to contact the Financial Aid Office at 508-929-8056.

Application Process

All students applying for financial aid must complete and submit a Free Application for Federal Student Aid (FAFSA) and a Worcester State University Financial Aid Application. Priority for financial aid is given to students who comply with the deadlines listed below. Please note that funding from the Federal Pell Grant and Federal Direct Loan programs is available to all late applicants who qualify.

All applicants are encouraged to apply for any scholarship assistance awarded by the state in which they legally reside. Students are urged to contact the appropriate agency in their home state for further information.

Financial aid is not automatically renewable. A new application for financial aid must be submitted for each academic year.

Financial Aid Application Deadlines

March 1

- priority date for filing the Free Application for Federal Student Aid (FAFSA). All students who wish to be considered for financial aid, must file the FAFSA. Late applications will be considered subject to the availability of funds.

May 1

- deadline for applying for the MASSGrant.
- deadline for on-time consideration for financial aid for students entering in the upcoming Fall

November 1

- deadline for on-time consideration for financial aid for students entering in the upcoming Spring

Sources of Financial Aid

Worcester State University has numerous financial aid programs available to assist students in meeting college costs. Funding for these programs comes from federal, state, institutional and private sources. Types of programs include grants, scholarships, waivers, loans, and employment. Please go to www.studentaid.ed.gov for more information on federal aid and www.osfa.mass.edu for more information on state aid.

Federal Grants and Benefits

Federal Pell Grant

The Federal Pell Grant is available to undergraduate students enrolled in a degree program who do not already have a bachelor's degree. For the 2014/2015 academic year, Pell Grants range from $602 to $5,730. All eligible students will receive the Federal Pell Grant amount to which they are entitled.

Federal Supplemental Educational Opportunity Grant

The Federal Supplemental Educational Opportunity Grant (FSEOG) is a federal grant administered by the University. These Grants are limited to undergraduate students who do not already have a bachelor's degree. Priority is given to students with exceptional need and to Pell Grant recipients. SEOG awards are determined by the Financial Aid Office.

Veterans Benefits

The Veterans Administration has approved Worcester State University for the purpose of providing Veteran's Educational Benefits to veterans pursuing undergraduate and graduate study. Massachusetts veterans entitled to educational benefits must provide the Registrar's Office with a copy of their Form DD-214. Upon receipt of this certificate and the veteran's application, the University will prepare a notice of enrollment and notify the Veterans Administration to determine eligibility for, and initiate payments to the student. Questions concerning veteran's benefits should be directed to the Office of the Registrar.

Grants and Waivers for Massachusetts Residents

MassGrant Program

The MASSGrant Program is administered and awards are made by the Office of Student Financial Assistance under the MA Department of Higher Education. Scholarship eligibility is verified by the Financial Aid Office. For the 2014-2015 academic year, scholarship awards at Worcester State University range from $300 to $900. Application is made by completing the FAFSA. Massachusetts residents applying for financial aid who will enroll full-time must apply for MASSGrant by May 1. MASSGrant eligibility is limited to eight semesters.

Worcester State University Need-Based Tuition Waiver and Massachusetts Cash Grant Program

Full and partial need-based tuition waivers are awarded to selected students who demonstrate financial need and who are:

- undergraduate students
- in good academic standing
- legal residents of Massachusetts.

Waivers may not exceed a semester's tuition charge and other waivers and/or tuition remissions for which a student is eligible will be deducted from the tuition charged before the need-based tuition waiver amount is determined. Award amounts are determined by the Financial Aid Office.

Massachusetts Cash Grant is awarded based on need and cannot exceed tuition and fees. Award amounts are determined by the Financial Aid Office.

Categorical Tuition Waivers

Worcester State University students may be considered for tuition waivers based on the following designations (contact the Bursar about providing documentation of eligibility):

Veterans Tuition Waiver: As provided in M.G.L. Chapter 4, Section 7(43) including: Spanish War, World War I, World War II, Korean, Vietnam, Lebanese Peace Keeping Force, Granada Rescue Mission, the Panamanian Intervention Force, or the Persian Gulf.

For purposes of tuition waivers, the term "veteran" shall also include any individual who served in the Army, Navy, Marine Corps, Coast Guard or Air Force of the United States for not less than ninety days at least one of which was served in the theatre of operation for the Somalian mission known as "Operation Restore Hope" and whose last discharge or release was under honorable conditions.

Native American Tuition Waiver: Available and certified by the Bureau of Indian Affairs.

Senior Citizen Tuition Waiver: Available for persons over the age of 60.

Armed Forces Tuition Waiver: Available for an active member of the Armed Forces including Army, Navy, Air Force, or Coast Guard stationed and residing in Massachusetts.

Clients of the Massachusetts Rehabilitation Commission or Commission for the Blind: Available as certified by the respective commission.

John and Abigail Adams Scholarship Program: Awards non-need-based state-supported undergraduate tuition waivers to students who are awarded John and Abigail Adams Scholarship by the Department of Education. Completion of a FAFSA, continuous full-time enrollment at a state college or university, and a 3.0 are required.

Tuition Advantage Program (TAP): Available to students who have completed a Joint Admissions academic program at a public community college and have maintained a 3.0 grade point average at the time of graduation. The award equals the difference between tuition at Worcester State University and tuition at the community college.

Department of Social Services Adopted Children Tuition Waiver: This tuition waiver encompasses 100% of tuition for state-supported courses at all of the Massachusetts public institutions of higher education, excluding graduate courses. Eligible students include all students in the custody of the Department of Social Services adopted by eligible Massachusetts' residents through the Department of Social Services. Students must be twenty-four (24) or under. The Department of Social Services will provide certification of eligibility for the waiver; please contact them for further information.

Department of Social Services Foster Care Tuition Waiver: This tuition waiver encompasses 100% of tuition for state-supported courses at all of the Massachusetts public institutions of higher education, excluding graduate course. Eligible students include all students in the custody of the Department of Social Services placed in foster care with eligible Massachusetts' residents through the Department of Social Services. Students must be twenty-four (24) or under. The Department of Social Services will provide certification of eligibility for the waiver; please contact them for further information.

Massachusetts National Guard Scholarships: Members of the Massachusetts Army or Air National Guard Office Recruitment Program are eligible for 100% tuition remission. Eligibility must be renewed after each 30 credits attempted. Contact the Massachusetts National Guard or the Registrar's Office to speak to the Veteran's Representative for more information.

Police Officer/Fire Fighter Waiver: Tuition waivers are available to police officers or fire fighters of a city or town of the Commonwealth of Massachusetts for full-time attendance as a matriculated student when proper certificates and credentials are submitted to the Bursar's Office.

State Employees' Tuition Remission: State Employees and their dependents that elect to take courses at Worcester State University may have some or all of their tuition waived. Documentation of eligibility should be submitted to the Bursar's Office. Eligible persons should contact the Personnel Office at their place of employment for further details.

Army/Navy/Air Force ROTC Scholarship Programs: The ROTC Scholarship is designed to offer financial assistance to outstanding students in the four year programs. Normally, the award is made prior to the student's first year of college; however, a student may enter the program in their first year. Recipients are required to serve on active duty in the branch of the Service they have elected for a period of four years, and then in the active reserve. Contact the ROTC Office at the College of the Holy Cross or Worcester Polytechnic Institute for further information.

Student and Parent Loans

Federal Direct Loans

The Federal Direct Loan Program is a federal loan program designed to help a student pay expenses at institutions of post-secondary education. All Federal Direct Loan applicants must demonstrate financial need in order to qualify for a subsidized loan. A student with no need or partial need may be eligible for an unsubsidized loan. A Free Application for Federal Student Aid (FAFSA) must be completed before a Federal Subsidized and/or Unsubsidized Direct Loan can be processed. The interest rate for Federal Direct Loans is variable but will not exceed 8.25%. The interest rate is adjusted each year on July 1. The repayment period for Federal Direct Loans begins six months after the student/borrower is graduated, ceases to be at least a half-time student or withdraws from school.

- **Dependent/Independent undergraduates** can receive subsidized Direct Loans up to: 1) Students who have completed 1-29 credit hours of study are eligible for $3,500, 2) Students who have completed 30-59 credit hours of study are eligible for $4,500, 3) Students who have completed 60 or more credit hours of study are eligible for $5,500. Also, all students are eligible for up to $2,000 in additional unsubsidized Direct Loans.
- **Independent students** and dependent students whose parents are unable to obtain a PLUS loan can borrow additional amounts from the Unsubsidized Federal Direct Loan Program, in the amount of $4,000 for their first and second years of study and $5,000 for their third and fourth year.
- **Graduate students** can borrow up to $20,500 from the Unsubsidized Federal Direct Loan Program if their cost of education warrants these amounts.

Direct Loan borrowers should go to www.studentloans.gov for specific information on repayment, deferment, cancellation and default provisions.

Federal Perkins Loans

The Federal Perkins Loan Program is administered by the University and offers long term, low-interest loans to undergraduate and graduate students. Federal Perkins Loan awards are determined by the Financial Aid Office.

No interest is charged during periods of at least half-time enrollment and during the grace period. The interest rate is 5% per year during repayment periods. Loan repayment begins six months after the borrower leaves school or drops below half-time status (6 credits at Worcester State University). Minimum repayment is $120 per quarter. Loan repayment may not exceed 10 years.

Federal Parent Loan to Undergraduate students (PLUS)

This loan enables parents of dependent undergraduates to borrow for their dependent's education. A FAFSA is required to receive a Federal Plus Loan. Repayment of this loan begins within 60 days of the date that the loan is disbursed. However, parents may apply for a deferment through their servicer. The interest rate is variable, adjusted annually, not to exceed 9%. Parents may borrow up to the cost of attendance annually, less any financial aid awarded to the student. Parents can apply for PLUS loans and get specific information on repayment, deferment, cancellation and default provisions at www.studentloans.gov.

Private Education Loans

Private education loans may be available to assist students who have received the maximum financial aid award(s) allowed through grants, workstudy, and loans but still have remaining University expenses.

Students may search online for more information regarding private education options.

Student Employment

Federal College Work-Study Program

The Federal Work-Study Program (FWSP) is a need-based program that provides federally subsidized employment opportunities on campus for enrolled students. A student's financial aid award letter indicates the FWS award and maximum earnings limit, typically $1,500, depending on availability of funds and individual need. Students are paid only for hours actually worked. The FWSP wage rate is variable depending on placement. FWSP earnings are not applied directly to the student's tuition account without the student's written consent. These wages are paid directly to the student. Students employed under the FWSP Program are not eligible for unemployment compensation benefits or worker's compensation for on-the-job accidents. Students are encouraged to participate in employment that complements and reinforces their educational goals.

Other On-Campus Employment

Some departments on campus—including the Student Center, the bookstore, the campus food service contractor, the Learning Resource Center, and the Residence Life Office—offer part-time jobs to students. Contact the department(s) for information on possible openings and application procedures. Students are encouraged to see if they qualify for FWSP funding before applying for these jobs.

Tuition Payment Plan

Worcester State University participates in a tuition payment plan offered through Sallie Mae. The plan offers the family a low-cost, flexible method of paying for educational expenses by prorating these costs over 10 months. This is not a loan program. For more information visit www.tuitionpay.salliemae.com or call 800-635-0120

Worcester State University Merit Scholarships for Entering Students

Worcester State University recognizes superior academic achievement by awarding a number of academic scholarships to incoming first year students. Merit Scholarships can provide up to full in-state tuition and fees and are awarded for a full academic year. They are renewable for full-time students who maintain a specific GPA. Applying for admission to WSU automatically constitutes consideration for these scholarships. No additional application is required. A limited number of merit scholarships are available and students must meet minimum academic standards in order to be eligible. Meeting minimum academic standards does not guarantee the awarding of a merit scholarship. Additional factors beyond a student's GPA and SAT scores are considered in the selection process.

Tsongas Scholarship

Awarded each year to Massachusetts residents for full in-state day school tuition and fees. They must have a recalculated GPA of a 3.75 (using DHE methodology) and a combined SAT (CR&M) of 1200. The scholarship is renewable for a maximum of four contiguous years to recipients who maintain a minimum cumulative GPA of 3.3.

Presidential Scholarship

Awarded each year for full in-state day school tuition and fees. The student must have a recalculated GPA of 3.75 or above (using DHE methodology) and a combined SAT (CR&M) of 1200 (sub-score minimums of 500). The scholarship is renewable for a maximum of four contiguous years to recipients who maintain a minimum cumulative GPA of 3.3.

Merit Scholarship

Awarded each year for $3,000 each. The student must have a recalculated GPA of 3.5 or above (using DHE methodology) and a combined SAT (CR&M) of 1150 (sub-score minimums of 500). The scholarship is renewable for a maximum of four contiguous years to recipients who maintain a minimum cumulative GPA of 3.0.

Achievement Scholarship

Awarded each year for $1,500 each. The student must have a recalculated GPA of 3.2 or above (using DHE methodology) and a combined SAT (CR&M) of 1100 (sub-score minimums of 500). The scholarship is renewable for a maximum of four contiguous years to recipients who maintain a minimum cumulative GPA of 3.0.

Access Scholarship

Awarded each year to Massachusetts residents of under-represented populations including African American, Latino/a, Asian, and Native American applicants and first-generation, low-income applicants for $1000 each. The student must have a recalculated GPA of 2.5 (using DHE methodology) and a combined SAT (CR&M) of 920 with sub-score minimums of 460. The scholarship is renewable for a maximum four contiguous years provided recipients maintain a specific minimum cumulative GPA requirement.

Worcester State University Academic Scholarships for Returning Students

Academic scholarships provided by generous donors are available to undergraduate students at Worcester State University who meet the eligibility criteria. These scholarships are available to a wide variety of class years, majors, backgrounds, and interests, as well as varying levels of academic success and financial need. Applications are accepted annually between February 1 and April 1. Students are required to apply online. Details are available at www.worcester.edu/scholarships.

FALL 2014 ACADEMIC CALENDAR

September

2	Pre-College Conference
3	**Classes begin: day, evening, graduate**
9	Last day to add day courses (state-supported)
16	Last day to drop day courses (state-supported)
16	Last day to add/drop evening/graduate courses (non state-supported)

October

13	**Columbus Day: NO CLASSES**
15	Last day to declare/change major/minor
16	Last day to makeup Incomplete grades from Spring/Summer 2014
21	Failure warnings due in the Registrar's Office
10/27-11/7	Advising for pre-registration
30	Last day to withdraw from courses/school

November

10-21	Pre-registration for Spring 2015
11	**Veterans' Day NO CLASSES**
12	Last day to elect Pass/Fail option
26-29	Thanksgiving Recess

December

1-5	Student evaluation of the faculty
9	**All classes end**
10	Reading Day
11-19	Final Exams-day classes
22, 23	Make-up days for exams postponed due to inclement weather
31	**Semester ends**

EXAMINATION SCHEDULE: FALL 2014

CLASS DAY AND TIME		EXAMINATION DAY AND TIME		
MWF	8:00/8:30AM	Friday	December 12	8:30AM
MWF	9:30AM	Monday	December 15	8:30AM
MWF	10:30AM	Wednesday	December 17	8:30AM
MW/MWF	11:30AM	Friday	December 12	12:30PM
MW/MWF	12:30PM	Monday	December 15	12:30PM
MW/MWF	1:30/2:00PM	Wednesday	December 17	12:30PM
MW	3:30PM	Friday	December 19	8:30AM
F	11:30/12:30/1:30PM	Friday	December 19	12:30PM
TR	8:30AM	Thursday	December 11	8:30AM
TR	10:00AM	Tuesday	December 16	8:30AM
TR	11:30AM	Thursday	December 11	12:30PM
TR	1:00PM	Tuesday	December 16	12:30PM
TR/T	2:30PM	Thursday	December 18	8:30AM
R	2:30PM	Thursday	December 18	12:30PM

SPRING 2015 ACADEMIC CALENDAR

January

19	**Martin Luther King Day: NO CLASSES**
20	Classes begin: day, evening, graduate
26	Last day to add day courses (state-supported)

February

2	Last day to drop day courses (state-supported)
2	Last day to add/drop evening, graduate courses (non state-supported)
16	**President's Day: NO CLASSES**

March

3	Last day to make up Incompletes from Fall 2014
11	Last day to declare/change major or minor
16-21	**Spring Break: NO CLASSES**
23	Failure warnings due in the Registrar's Office
25	Failure warnings issued to students
3/30-4/10	Advising for Pre-registration

April

1	Last day to withdraw from courses/school
7	Last day to elect Pass/Fail status
13-24	Pre-registration for Fall 2015
20	**Patriot's Day: NO CLASSES**
4/27-5/1	Student evaluation of faculty

MAY

5	All classes end
6	Reading Day
7-15	Final Exams-day classes
15	**Graduate Commencement**
16	**Undergraduate Commencement and end of semester**

EXAMINATION SCHEDULE SPRING 2015

CLASS DAY AND TIME		EXAMINATION DAY AND TIME		
MWF	8:00/8:30AM	Friday	May 8	8:30AM
MWF	9:30AM	Monday	May 11	8:30AM
MWF	10:30AM	Wednesday	May 13	8:30AM
MW/MWF	11:30AM	Friday	May 8	12:30PM
MW/MWF	12:30PM	Monday	May 11	12:30PM
MW/MWF`	1:30/2:30PM	Wednesday	May 13	12:30PM
MW	3:30PM	Friday	May 15	8:30AM
F	11:30/12:30/1:30PM	Friday	May 15	12:30PM
TR	8:00/8:30AM	Thursday	May 7	8:30AM
TR	10:00AM	Tuesday	May 12	8:30AM
TR	11:30AM	Thursday	May 7	12:30PM
TR	1:00PM	Tuesday	May 12	12:30PM
TR/T	2:30PM	Thursday	May 14	8:30AM
R	2:30PM	Thursday	May 14	12:30PM

DGCE 2015 ACADEMIC CALENDAR

WINTER SESSION

October

10/21-01/5	Winter Session 2015 Registration

January

6	**Classes Begin**
7	Deadline to add/drop Wintersession Classes
8	Deadline to Request Pass/Fail grading
	Deadline to Request a Withdrawal
16	**Last Day of Classes**
17	Snow Cancellation Make-Up Day

SUMMER SESSION 2015

March

10	Summer Registration Begins

May

25	**Memorial Day: NO CLASSES**
26	**Summer Session I Begins**

June

2	Last day to Add/Drop (Summer I)
12	Last day to Withdraw (Summer I)
12	Last day to request Pass/Fail (Summer I)
30	*(Registration shuts down at 11:30a.m. then restarts on July 1)*

July

2	Summer Session I Ends
3	Independence Day Observed: COLLEGE CLOSED
6	**Summer Session II Begins**
13	Last day to Add/Drop (Summer II)
23	Last day to Withdraw (Summer II)
23	Last day to request Pass/Fail (Summer II)

August

14	Summer Session II Ends

WORCESTER STATE UNIVERSITY

OFFICE OF ACADEMIC AFFAIRS

Dr. David Caruso
Interim Provost and Vice President for Academic Affairs

Dr. Patricia A. Marshall
Associate Vice President for Academic Affairs

Dr. Roberta Kyle
Acting Associate Vice President for Continuing Education and
Acting Dean of Graduate Studies

Dr. Carol M. Lerch
Assistant Vice President for Assessment and Planning

Dr. Anthony K. Adade
Associate Vice President and Chief Information Officer

Dr. Linda S. Larrivee
Dean of the School of Education, Health and Natural Sciences

Dr. Lisa Krissoff-Boehm
Interim Dean of the School of Humanities, Social Sciences

Dr. Sara Grady
Acting Associate Dean of Graduate and Continuing Education

Marcela A. Uribe-Jennings
Assistant Dean/Director, Office of Multicultural Affairs & Alternatives

Gerald E. Sorge Jr.
Director, Academic Affairs Administrative Support
for Individual Development

Angela Quitadamo
Director, Retention

Dr. Karen Woods Weierman
Director, Honors Program

Global Studies
Global Studies Concentration

Director

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Janice G. Yee, Professor of Economics
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Sara Young, Assistant Professor (2014)
Ed.D., University of Massachusetts Amherst, Teacher Education

Barbara Zang, Professor of Communication
B.S., University of Missouri; M.A., University of Toledo; M.A., University of Missouri;
Ph.D., Indiana University

Global Studies is an interdisciplinary academic area that draws from a wide range of disciplines in the Humanities, the Sciences and the Arts to examine global processes and events and their effects at a local level. For the last two decades the world has been undergoing a sustained reorganization along economic, social, political, cultural, technological and environmental lines that cut across national boundaries. WSU has also experienced an increased global connectivity, integration and interdependence, and witnessed the emergence of planet wide issues such as climate change, poverty, new technologies and entrenched wars. In response to these real world events, Global Studies has emerged as a dynamic interdisciplinary academic field to study the forces shaping these complex processes.

The mission of the Global Studies concentration is to prepare students to understand international affairs and provide them with a solid background for decision-making in an increasingly interdependent world community. Students are encouraged to connect their knowledge of a particular region of the world to larger transnational processes and to examine their identities in a global frame. The interdisciplinary concentration in Global Studies will give students added skills to function in a global market and the depth of understanding necessary to be responsible citizens of planet Earth.

Requirements for a Concentration in Global Studies: 15 credits

Students are required to take a total of five Global Studies courses starting with GL 150 Introduction to Global Studies (Required) plus four electives chosen from across various disciplines. One of the elective courses has to be at a 200 level and another at either a 300 or 400 level. No more than two courses can be counted from the same department. Students are strongly encouraged to elect a world language course other than English and/or a study abroad course that meets the Global Studies criteria.

Global Studies Courses

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

Courses marked with an asterisk (*) are approved for the concentration only during those semesters when they are listed under Global Studies in the Course Schedule

GL 150 Introduction to Global Studies

This course analyzes the forces reorganizing the planet along economic, social, political, cultural, technological and environmental lines across national boundaries.
Offered every year, 3 credits.

GL/AB 210 Intermediate Arabic I

LASC—Thought, Language and Culture

Introduction in advanced rules of Arabic grammar and verb system, and in advanced writing and reading.
Offered every year. 3 credits.

*GL/AR 112 World Art Survey I

LASC—Creative Arts; Thoughts, Language and Culture

Surveys the world's major cultural achievements in the visual arts from the prehistoric period to ca1400.
Offered every year. 3 credits.

*GL/AR 113 World Art Survey II

LASC—Creative Arts; Thoughts, Language and Culture

Major cultural achievements in the visual arts from ca1400 to the early twentieth century.
Offered every year. 3 credits.

GL/BA 494 International Marketing

Prerequisites: EC 120, BA 318

With the rapid and continuous changes in a global environment this course will examine the complex issues in international marketing faced by today's manager.
Offered every year. 3 credits.

GL/BI 112 Diseases and Mankind

Diseases of ancient and modern man; the impact on history, religion, science, art and philosophy.
Offered every year. 3 credits.

GL/BI 114 Plants and Human Affairs

LASC—Global Perspectives; Natural Systems and Processes

Man's dependence upon plants and their influence on civilization and its art, religions, literature, folklore, medicine, and human behavior.
Offered every 2 years. 3 credits.

*GL/BI 199 Selected Topics in Biological Sciences

Each topic is a lecture and/or laboratory course in a selected area of the biological sciences presented by a departmental instructor. Topics will be announced in advance.
Offered every year. 1-4 credits.

GL/BI 380 Biodiversity and Conservation Biology

Prerequisites: BI 105 and 106 or BI 140, BI 141

A theoretical and quantitative approach to species, genetic, ecosystem and community diversity in the context of modern conservation biology principles.
Offered every 3 years. 4 credits

*GL/BA 440 International Business

Prerequisites: BA 316, BA 318

Focuses upon the international dimensions of management, finance, and marketing as they impact corporate policy and strategy.
Offered every 2 years. 3 credits.

*GL/CH 191 Selected Topics

Paper or Plastic? A lecture or laboratory course designed to introduce a selected topic(s) of interest.
Offered every 3 years. 1-4 credits.

GL/CH 320 Environmental Chemistry

Prerequisites: CH 120, CH 121 and CH 111 or CH 201

Chemistry of the atmosphere, soil, and natural water systems, air and water pollution water treatment, hazardous wastes and pollution control.
Offered every 2 years. 3 credits.

GL/CM 270 Media and Globalization

This course examines the emergence of global media and its impact on the development of a global world.
Offered every 2 years. 3 credits.

*GL/CM 350 Intercultural Communication

Prerequisite: CM 100

Introductory communication theory and practice across cultural groups defined by race, ethnicity, gender, religion, age, nationality, politics and economics.
Offered every 2 years. 3 credits.

GL/CM 390 Alternative Communication

Prerequisite: CM 103

This course introduces students to the theory and practice of alternative communication and its relationship with culture and politics.
Offered every 3 years. 3 credits.

*GL/CM 410 Seminar: Topics in Communication

Prerequisites: Permission of Instructor

Amazon Expedition; Oil, and Indigenous Survival. This course engages students in advanced examination of emerging communication topics and of topics in a faculty's area of expertise.
Offered every 2 years. 3 credits.

*GL/EC 206 Urban Economics

Prerequisites: EC 110; EC 120

The theory and policy of the growth and development of metropolitan areas; some of the policy-related problems discussed are poverty, residential and commercial land use, and traffic congestion.
Offered every 2 years. 3 credits.

GL/EC 210 Current Economic Issues

Prerequisites: EC 110; EC 120

This course is designed to connect economic knowledge and theory acquired at the introductory level to current economic issues and policy. National and international topics of importance will be considered. For example, pollution, trends in productivity, profitability and distribution, debt and deficits, patterns of investment, trade, and globalization and the economic issues of race, gender and poverty may be covered.
Offered every year. 3 credits

GL/EC 301 Economic Development

Prerequisites: EC 110, EC 120

A survey of contemporary economic theories concerning less developed countries; social, cultural, and political forces shaping the development of such countries are also investigated.
Offered every 3 years. 3 credits

*GL/EC 307 International Finance

Prerequisites: EC 110, EC 120

Study of how international trade and investment is financed in a world of floating, fixed and managed exchange rate systems.
Offered every 2 years. 3 credits.

*GL/EC 308 International Trade

Prerequisites: EC 110, EC 120

Reasons why nations gain by spatial specialization and exchange with other countries. Analysis of the mechanism by which international equilibrium is restored. Study of trade and foreign exchange policies.
Offered every 2 years. 3 credits.

GL/EN 132 World Literature: Survey of Asian, African and Latin American Literature

LASC—Global Perspectives; Thought, Language and Culture; Diversity Across the Curriculum

Representative poems, stories, plays, both ancient and modern, from Asia, Africa, and Latin America.
Offered every year. 3 credits.

GL/EN 167 Literature and Human Rights

LASC—Global Perspectives; Diversity Across the Curriculum, Human Behavior and Social Processes

An analysis of international creative writing dealing with the subject of human rights. Resource persons from different fields will be utilized.
Offered every 3 years. 3 credits.

*GL/EN 169 Ethnic Literature in the U.S.

LASC—Thought, Language and Culture; United States and Its Role in the World; Diversity Across the Curriculum

Study of ethnic Literature in the U.S., focusing on African-American, Asian-American, Latino, and Native American writers
Offered every year. 3 credits

GL/EN 240 Survey of Postcolonial and Transcultural Literature

LASC—Global Perspectives

Prerequisite: EN 102

Introduction to literatures in English from formerly colonized countries in Africa, Asia, and the Caribbean, and from the postcolonial diaspora.
Offered every year. 3 credits.

GL/EN 348 Postcolonial Women's Writing

LASC—Global Perspectives

Prerequisite: EN 102

Writing by women from colonized and formerly colonized countries on local and global issues shaping women's lives and creative expression.
Offered every 3 years. 3 credits.

*GL/EN 450 Special Topics in English

Prerequisite: EN 102

Specific content will vary in response to particular student and faculty interests.
Offered every year. 3 credits.

*GL/FR 401 Seminar in French Studies

Prerequisite: For advanced students

Francophone Literature. Special topics in French language, literature or civilization.
Offered every 3 years. 3 credits.

GL/GE 102 Human Geography

LASC—Global Perspectives; Human Behavior and Social Processes

Introduction to human geography, emphasizing globalization, human-environment relations and spatial patterns of population, development, economics, politics, urbanization and culture.
Offered every year. 3 credits.

GL/GE 110 World Regional Geography I

LASC—Global Perspectives; Human Behavior and Social Processes

Analysis of the physical, cultural and economic regions of Eurasia.
Offered every year. 3 credits.

GL/GE 111 World Regional Geography II

LASC—Global Perspectives; Human Behavior and Social Processes

Analysis of the physical, cultural and economic regions of Africa, Oceania and the Americas.
Offered every year. 3 credits.

GL/GE 255 Geography of Africa

Prerequisite: ONE of the following: GE/GL 102, GE/GL 111, GL 150, SO 100, SO 110, UR 101 or permission of instructor

Analysis of the physical and human geography of Africa.
Offered every year. 3 credits.

GL/GE 258 Global Environmental Change

Introduction to the science, political economy and ethics of global environmental change.
Offered every year. 3 credits

GL/GE 285 Sustainable Communities

LASC—Human Behavior and Social Processes; United States and Its Role in the World

Prerequisite: ONE of the following: GE/GL 102, GL 150, EC 110, EC 120 or permission of instructor

Exploration of changes in U.S. and global economic landscape, 1970 to present. Approaches to sustainable economic development.
Offered every year. 3 credits.

GL/GE 308 Environment and Development

Prerequisite: GE 258 or permission of instructor

The global ecology of rich and poor. Environmental implications of poverty, economic development, mass consumption, globalization and demographic change.
Offered every 3 years. 3 credits.

GL/HC 202 Introduction to Global Health

GL/HE 390 Environmental Health

Prerequisite: HE 100

Examination of the issues affecting the environment and their impact on individual and global health.
Offered every year. 3 credits.

GL/HI 103 World Civilization I

LASC—Global Perspectives; Thought, Language and Culture

Surveys economic, social, political, and intellectual development of world civilizations and their inter-relationship from ancient times to 1500
Offered every year. 3 credits.

GL/HI 104 World Civilization II

LASC—Global Perspectives; Thought, Language and Culture

Surveys economic, social, political, and intellectual development of world civilizations and their inter-relationship from 1500 to 1914
Offered every year. 3 credits.

GL/HI 105 World Civilization III

LASC—Global Perspectives; Thought, Language and Culture

Surveys economic, social, political, and intellectual development of world civilizations and their inter-relationship from 1914 to the present.
Offered every year. 3 credits

*GL/HI 112 US History II

LASC—Constitutions; United States and Its Role in the World

From the Civil War era to the present. Topics include politics, society, economy, and culture in modern America.
Offered every year. 3 credits.

GL/HI 191 Special Topics in History

History of Child Labor. This introductory level course will cover topics in history which are of special interest to first-year students.
Offered every year. 3 credits

GL/HI/PO 201 International Relations I

LASC—Global Perspectives; United States and Its Role in the World; Writing Across the Curriculum

Prerequisite: PO 101 or HI 103 or HI 104, and EN 102

Theory and practice of international security (realism and internationalism) and international political economy (liberalism and protectionism) in their historical context.
Offered every year. 3 credits.

GL/HI/PO 202 International Relations II

LASC—Global Perspectives; United States and Its Role in the World; Writing Across the Curriculum

Prerequisite: PO 101 or HI 103 or HI 104, EN 102

The promise and problems of globalization (spread of free market capitalism and political democracy).
Offered every year. 3 credits.

GL/HI 205 Native America

This survey covers the broad sweep of Native American history and focuses on the encounter between American and European civilizations and how Native culture has adapted through the centuries.
Offered every 2 years. 3 credits.

GL/HI 208 American Immigrant History

Survey of immigration. Topics such as old-world background, impact on US, nativism, cultural pluralism, religion, mobility, family and politics.
Offered every year. 3 credits.

GL/HI 214 Modern Latin America

The people of Latin America from independence to the present, focusing on race, sex and power.
Offered every year. 3 credits.

*GL/HI 216 Economic History of the US

An introduction to United States economic development; particular attention will be paid to industrialization and the labor force.
Offered every year. 3 credits

GL/HI 221 African-American History I

The people of African descent from the emergence of the slave trade to the Civil War, focusing on race, gender, and power.
Offered every year. 3 credits.

GL/HI 230 Nicaragua, the US and the World

LASC—United States and Its Role in the World; Diversity Across the Curriculum

The course will examine the impact of globalization and imperialism on the lives of Nicaraguans at home and in their diasporic communities.
Offered every year. 3 credits.

GL/HI 249 US Labor History I

The relationship between workers, their employers, and the surrounding community between 1815 and World War II.
Offered every 2 years. 3 credits.

GL/HI 261 Middle East History I

LASC—Global Perspectives; Thought, Language and Culture

The rise and expansion of Islam: the Caliphate, Muslim religion, civilization, and its impact on the West, decline of medieval Islam.
Offered every 2 years. 3 credits.

GL/HI 262 Middle East History II

LASC—Global Perspectives; Thought, Language and Culture; Writing Across the Curriculum

Prerequisite: EN 102

The Ottoman Empire: expansion, institutions, impact on Europe, decline of the Empire.
Offered every 2 years. 3 credits.

GL/HI 263 US - Middle East Relations

Prerequisite: HI 103 or HI 104 or HI 111 or HI 112

Course will discuss the influence the Middle East has had on US policy since US independence to the present.
Offered every 2 years. 3 credits.

*GL/HI 271 Women and Work in Historical Perspective

Prerequisite: HI 103 or HI 104 or HI 111 or HI 112

This course undertakes to examine women's work conditions and the opposition to its continuation in Europe and America, 16th-19th centuries.
Offered every 2 years. 3 credits

*GL/HI 274 Sex, Marriage and the Family in Historical Perspective

LASC—Thought, Language and Culture; Diversity Across the Curriculum

Prerequisite: HI 103 or HI 104 or HI 111 or HI 112

This course will undertake a study of courtship, marriage and family life-cycle patterns in England and America during the 19th century.
Offered every 2 years. 3 credits.

GL/HI/PO 323 Empire

Prerequisite: Hi 103 and HI 104

Theories and models of colonization, the reaction of colonized peoples, and the way historians analyze imperialism from 1400 to 1920's.
Offered every three years. 3 credits.

GL/HI/PO 330 Politics of the Middle East I

Prerequisite: HI 104 or HI 105 or HI 111 or HI 112 or PO 101 or HI 261 or HI 314

Discusses governments and politics of eastern Arab countries, Turkey, Iran, and Israel. International rivalries in the area are also discussed.
Offered every year. 3 credits.

GL/HI 333 Women in Latin America

Prerequisite: HI 233 or equivalent

Examines the roles of women in diverse societies including Mexico, Brazil and Caribbean nations. Emphasis on the modern period.
Offered every 3 years. 3 credits.

GL/HI 350 Native American Women

Prerequisite: HI 205 or equivalent

Examines Indian women from the time of European contact to the modern era. Emphasizes culture, community and arenas of power.
Offered every 3 years. 3 credits.

*GL/HI 450 Special Topics in History

Selected areas of interest to students and instructors.
Offered every year. 3 credits.

GL/MU 140 World Music

LASC—Creative Arts

An introduction to music of various cultures and continents including music of Africa, Asia, Latin America, The Middle East and India.
Offered every year. 3 credits.

GL/OT 411 International Service Learning

Instruction in occupational. therapy methods with an experiential component providing intervention to an underserved population in a foreign country.
Offered every year. 2 credits.

GL/PH 150 Women in Western Ideas

Investigates the concept of woman from ancient Greece to the present.
Offered every 2 year. 3 credits.

GL/PH 170 Ancient Chinese Philosophies in a Cultural Perspective

LASC—Global Perspectives; Thought, Language and Culture

Ancient Chinese philosophies of Taoism, Confucianism, Buddhism, and neo-Confucianism in the context of contemporary developments in China; Communism, Capitalism, and Western influences considered.
Offered every year. 3 credits.

GL/PH 172 Asian Philosophies and Contemporary Perspectives

Studies the philosophies of India, China, Japan, and the vitality of ancient traditions in a time of cultural change: Buddhism, Taoism, Confucianism, Jainism, Hinduism and Islam.
Offered every year. 3 credits.

GL/PH 177 Latin American Philosophies

LASC—United States and Its Role in the World; Diversity Across the Curriculum; Writing Across the Curriculum
Prerequisite: EN 102

Will analyze the political, economic, social, and cultural impact of the interactions between and among the governments and people of the US and Latin America.
Offered every year. 3 credits.

GL/PH 230 Religious Philosophies, East and West

An examination of the major religious systems, both oriental and occidental.
Offered every 2 years. 3 credits.

GL/PH 241 Genocide and Human Rights

LASC—Global Perspectives; United States and Its Role in the World

This course treats the ethical, political, and other dimensions of systematic mass violence through case studies and general theoretical analyses.
Offered every 3 years. 3 credits.

GL/PH 250 Global Feminism

LASC—Global Perspectives; Thought, Language and Culture

Investigates the theoretical underpinnings of women's movements for equal rights around the globe.
Offered every 2 years. 3 credits.

GL/PH 251 Mass Violence Against Women

LASC—Global Perspectives; United States and Its Role in the World

A philosophy-based, interdisciplinary course examining historical and contemporary mass violence against women.
Typically offered at least every three years.

*GL/PH 290 Advanced Special Topics in Philosophy

A treatment of current or special topics for students beyond the introductory level.
Offered every year. 3 credits.

GL/SO 110 Cultural Anthropology

GL/SO 270 Social Theory

GL/SO 299 Sustainable Communities

LASC—Human Behavior and Social Processes; United States and Its Role in the World

Prerequisite: ONE of the following: GE/GL 102, GL 150, EC 110, EC 120 or permission of instructor

Exploration of changes in U.S. and global economic landscape, 1970 to present. Approaches to sustainable economic development.
Offered every year. 3 credits.

GL/SO 425 Global Development

LASC—Global Perspectives; Human Behavior and Social Processes; Writing Across the Curriculum

Prerequisite: EN 102

This course gives an overview of the field of development and processes of development and underdevelopment in developing countries.
Offered every 2 years. 3 credits.

GL/SP 323 Advanced Conversational Spanish I

LASC—Thought, Language and Culture

Prerequisite: Two SP 200 level courses.

Intensive conversational practice for improving intonation, pronunciation, fluency, review of language usage. This course is for non-native Spanish speakers only.
Offered every year. 3 credits.

GL/SP 324 Advanced Conversational Spanish II

LASC—Thought, Language and Culture

Prerequisite: SP 323 or equivalent.

Continuation of SP 323.
Offered every year. 3 credits.

GL/SP 332 The Hispanic World Today

LASC—Global Perspectives; Diversity Across the Curriculum

Prerequisite: Two SP 200 level courses

Social, economic and political institutions; value systems and customs. Conducted in Spanish.
Offered every 2 years. 3 credits.

GL/SP 333 The Hispanic Presence in the United States

Prerequisite: Two SP 200 level courses

Sociocultural study of Hispanics in the United States, with a focus on major contemporary issues. Conducted in Spanish.
Offered every 2 years. 3 credits.

GL/SP 342 Introduction to Latin American Literature I

Prerequisite: SP 321, SP 323, SP 324 or instructor's approval.

Study of the literature produced in Latin America from the pre-Columbian era until the first wars of independence.
Offered every 3 years. 3 credits

GL/SP 349 Spanish-American Literature

Prerequisite: SP 321, SP 323, SP 324 or instructor's approval.

Representative works from South and Central American authors from the colonial period to the present.
Offered every 3 years. 3 credits.

*GL/SP 401 Advanced Study: Special Topics

Prerequisite: For advanced students

Gender, Identity and Representation in Latin America. Special topics in language, literature, civilization or field work of mutual interest to student and instructor.
Offered every 3 years. 3 credits.

GL/UR 191 Sustainable Communities

LASC—Human Behavior and Social Processes; United States and Its Role in the World

Prerequisite: ONE of the following: GE/GL 102, GL 150, EC 110, EC 120 or permission of instructor

Exploration of changes in U.S. and global economic landscape, 1970 to present. Approaches to sustainable economic development.
Offered every year. 3 credits.

*GL/UR 201 Analysis of Urban Systems

LASC—Human Behavior and Social Processes

Analysis of activities, programs, and policies designed to sustain and enhance the livability of individuals in an urban environment.
Offered every 2 years. 3 credits.

*GL/UR 213 Human Identity and the Urban Environment

Prerequisite: UR 101

Study of factors affecting identity in contemporary urban settings including race, ethnicity, class, age, and sex categories and roles.
Offered every year. 3 credits.

GL/UR 290 Gender and the City

LASC—Global Perspectives; Human Behavior and Social Processes; Writing Across the Curriculum

Prerequisite: EN 102

Exploration of ways in which gender, both male and female, structures responses of individuals to urban life and spaces.
Offered every 2 years. 3 credits.

GL/UR 353 Aging in a Global Society

LASC—Global Perspectives; Diversity Across the Curriculum

Explores the ramifications of unrelenting Global Aging, focusing on the questions, what are old people for and the connections across generations.
Offered every 2 years. 3 credits.

GL/UR 360 Environmental Systems and Public Policy

Prerequisite: UR 101 or permission of instructor

Examination of urban ecosystems, focusing on land uses designed to effectively utilize water, open space and other natural resources.
Offered every 2 years. 3 credits.

*GL/UR 421 Selected Topics in Urban Studies

Prerequisite: UR 101

In-depth examination of topical issues challenging the intellectual and creative interests of advanced students in urban studies.
Offered every year. 3 credits.

*GL/UR 422 Selected Topics in Gerontology

Prerequisite: Consent of instructor

In-depth examination of topical issues in gerontology which afford the advanced student the opportunity to pursue gerontological research.
Offered every 2 years. 3 credits.

Information Technology
Minor in Information Technology

Faculty Coordinator

Aparna Mahadev, Professor of Computer Science (1999)
B.Sc., University of Madras, India; M. Sc., University of Madras, India;
M.S., Indian Institute of Technology, India; Ph.D University of Waterloo, Canada

The Information Technology minor is an interdisciplinary minor that gives students the opportunity to develop skills and capabilities for the effective use of information technology in their discipline. This minor is available for all non-Computer Science majors and is designed to address information technology needs and career interests whatever their major is.

To obtain a minor in information technology, students need to complete six (6) courses for a total of 18+ credits.

Required Course:

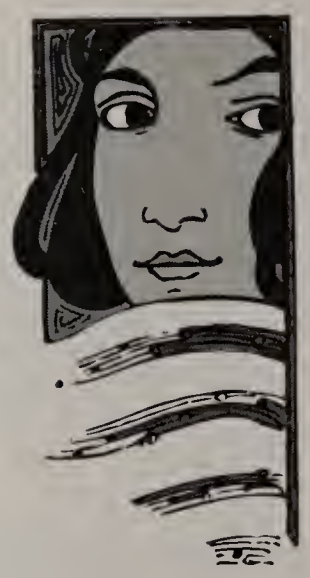
CS 101 Basics of Computer Science

Two Courses from Group I: Courses in this group will discuss the representation and manipulation of data in digital form. This may include the conversion process of the data from a form outside the computer, the issues and trade-offs involved in developing a representation, and the algorithms used for the manipulation and transformation of data.

Two courses from Group II: Courses in this group involve intensive, discipline-specific use of computers (beyond email, word processing, basic spreadsheets, presentation software and web browsing).

One course from Group III: Courses in this group will discuss information technology and its impact on society. At least 1/3 of the course content should relate to information technology.

The list of courses under each of the above three groups varies from semester to semester. Students are strongly encouraged to contact the Information Technology minor coordinator before registering for courses.



Women's Studies
Women's Studies Concentration

Director

Lori Dawson, Professor of Psychology
B.A., Suffolk University; M.A., Ph.D., State University of New York at Albany

Advisory Board

Sonya Conner, Assistant Professor of Sociology
B.S., University of Louisiana at Lafayette; M.A., Ph.D., University of Oklahoma

Michelle Corbin, Assistant Professor of Sociology
B.S., Western Michigan University; M.S. Eastern Michigan University;
Ph.D., University of Maryland

Suzanne Gainer, Professor of Communication
B.A., St. Vincent College; M.F.A., Rhode Island School of Design

Champika K. Soysa, Professor of Psychology
B.A., Mount Holyoke College, M.A., Ph.D., Clark University

Kristin Waters, Professor of Philosophy
A.B., Bard College; M.A., Ph.D., University of Connecticut

Teaching Faculty

Madeline Otis Campbell, Assistant Professor of Urban Studies
B.A., M.A., Brown University; M.A., Ph.D., University of California, Davis.

Alta Carroll, Professor of Communication
B.A., Texas A&M University; M.S., Columbia University; Ph.D., Purdue University

Bruce S. Cohen, Associate Professor of History
A.B., M.A., Rutgers University

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Ph.D., University of Maryland

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Carlos Fontes, Professor of Communication
B.A., Escola Superior de Meios de Communicacao Social, Lisbon;
M.A., Ph.D., University of Massachusetts

Julie Frechette, Professor of Communication
B.A., University of New Hampshire; M.A., Ph.D., University of Massachusetts

Suzanne Gainer, Professor of Communication
B.A., St. Vincent College; M.F.A., Rhode Island School of Design

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B.A., University of North Carolina-Asheville; M.A, Ph.D., University of Texas-Austin

Barbara Ann Giguere, Professor of Nursing
R.N., Worcester City Hospital School of Nursing; B.S., Worcester State College;
M.S., University of Connecticut; Ed.D., University of Massachusetts

Ruth P. Haber, Associate Professor of English
B.A., M.A., Ph.D., University of California, Santa Barbara

Tona J. Hangen, Assistant Professor of History
B.S., Massachusetts Institute of Technology; Ph.D., Brandeis University

Stephen Healy, Associate Professor of Geography
B.A., Hampshire College; M.S., Ph.D., University of Massachusetts

Vrinda Kalia, Assistant Professor of Psychology
B.A., Jesus and Mary College; M.A., Ph.D., Clark University

Robyn Leo, Associate Professor of Nursing
R.N., Framingham Union Hospital; B.S.N., Worcester State College;
M.S.N., University of Connecticut

Lauren Mizock, Assistant Professor of Psychology
B.A., Oberlin College; M.A., Ph.D., Suffolk University

Christie B. Nigro, Professor of Music and Interdisciplinary Visual and Performing Arts
B.M., Syracuse University; M.M., Yale University;
Ph.D. University of Massachusetts Amherst

Steven J. Oliver, Associate Professor of Biology
B.A., University of Montana; Ph.D., Boston University

Maureen E. Power, Professor of Urban Studies
A.B., Emmanuel College; M.S.W., Ph.D., Brandeis University

Josna E. Rege, Professor of English, Director of Global Studies
B.A. Harvard University; M.A., Ph.D. University of Massachusetts Amherst

Mary Lynn D. Saul, Professor of English
B.S., M.A., Ph.D., Ohio State University

Helena B. Semerjian, Associate Professor of Health Sciences
B.S., M.Ed., Fitchburg State College; M.Ed., Boston University

Champika K. Soysa, Professor of Psychology
B.A., Mount Holyoke College, M.A., Ph.D., Clark University

Maureen C. Stefanini, Professor of Business Administration
B.S., Ed.M., Worcester State College; M.S., Management, Massachusetts Institute of Technology; Ed.D., Boston University

Henry C. Theriault, Professor of Philosophy
B.A., Princeton University; Ph.D., University of Massachusetts

Marc J. Wagoner, Assistant Professor of Psychology
B. A., Morehouse College; Ph.D. University of Minnesota

Karen Woods Weierman, Professor of English
B.A., Georgetown University; Ph.D., University of Minnesota

Sharon R. Yang, Professor of English
B.A., University of Massachusetts Lowell; M.A., Clark University;
Ph.D., University of Connecticut

Active Faculty

Patricia A. Benjamin, Associate Professor of Geography
B.A., University of Oregon; M.L.S., University of Maryland; M.A., Ph.D., Clark University

Richard Bisk, Professor of Mathematics
B.A., Drew University; M.S., University of New Hampshire; A.S.A., Society of Actuaries;
Ph.D., Clark University

Lynn Bloomberg, Associate Professor of Health Sciences
B.A., University of Hawaii; M.Ed., University of Texas; M.P.H., Dr.P.H., University of California at Berkeley

Carol Burns Donnelly, Professor of Education
A.B., Wellesley College; M.A., University of Miami; M.Ed., Harvard University;
Ed.D, Boston University

Anne M. Falke, Professor of Chemistry
B.A., University of Rhode Island; Ph.D., University of New Hampshire

James E. Foley, Associate Professor of English
B.A. Tufts University; M.A., Ph.D., Indiana University, Bloomington

Maria G. Fung, Associate Professor of Mathematics
B.A., M.S., Ph.D., Cornell University

Anne W. Gathuo, Associate Professor of Urban Studies
B.Ed., Kenyatta University; M.B.A., University of Nairobi;
Grad Certificate, M.S., Ph.D., University of Massachusetts Boston

Judith Jeon-Chapman, Professor of French, Spanish and World Languages
B.A., College of St. Benedict; M.A., Ph.D. University of Washington, Seattle

Matthew Johnsen, Associate Professor of Sociology
A.B., Dartmouth College, Hanover, NH; M.S., New Hampshire College; Ph.D., North Carolina State University

Bonnie G. Kanner, Professor of Psychology
B.A., M.S., C.A.S., State University of New York at Albany;
Ph.D. Clark University

Hye-Sun Kim, Assistant Professor of Criminal Justice
B.A., Dongguk University, South Korea; M.A., Ewha Women's University, South Korea;
M.A., John Jay College of Criminal Justice; Ph.D., Indiana University of Pennsylvania

Margaret E. Kerr, Professor of Chemistry
B.S., University of Maine; Ph.D. Wesleyan University

Bonnie Orcutt, Professor of Economics (on leave)
B.S., Worcester State College; M.A., Ph.D., Clark University

Margarita Perez, Professor of Education
B.A., Mount Holyoke; M.A., Ed.D., Teachers College, Columbia University

Daniel C. Shartin, Professor of Philosophy
B.A., M.A., Ph.D., University of California at Los Angeles

Adam Zahler, Associate Professor of Theatre
B.A., University of Vermont; M.F.A., University of Virginia

Barbara Zang, Professor of Communication
B.S., University of Missouri; M.A., University of Toledo; M.A., University of Missouri; Ph.D., Indiana University

Women's Studies is an interdisciplinary, academic course of study which lies at the intersection of the traditional academic disciplines such as literature, history, and philosophy in the humanities, psychology and sociology in the social sciences, as well as biology and geography in the natural sciences. Women's Studies has also found a prominent place in newer and interdisciplinary areas such as education, communications, urban studies and health sciences. Wherever gender issues are germane to a discipline, Women's Studies can be found, in part as a corrective to the centuries-long tendency of the traditional disciplines to focus mainly or exclusively on men and in part to bring new models of understanding to all areas of study.

The undergraduate concentration in Women's Studies brings together courses that focus on women and provide a critical analysis of gender and the related categories of class, race and other dimensions of social power. Gaining knowledge about women and men and understanding knowledge generated by Women's Studies helps students to move through a complex contemporary world.

Requirements for a Concentration in Women's Studies: 15 credits

The Women's Studies concentration is interdisciplinary; it uses a broad variety of academic disciplines in achieving its goals. Students are required to take a total of five Women's Studies courses from at least two disciplines. It is recommended that students take an introductory course such as WO/UR 103: Introduction to Women's Studies or WO/PH 150: Women in Western Ideas. Students are also encouraged to engage in some sort of specialized experience such as an independent study, a directed readings course leading to a major paper, a creative project or an internship. Students in Women's Studies may use courses to simultaneously count for a concentration in Women's Studies and other Worcester State University requirements.

Women's Studies Courses

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

Courses marked with an asterisk (*) are approved for the concentration only during those semesters when they are listed under Women's Studies in the Course Schedule.

WO/CM 213 Gender and Media

LASC—Human Behavior and Social Processes; Thought, Language and Culture; Diversity Across the Curriculum; Writing Across the Curriculum

Prerequisite: CM 100, EN 102

This course will examine how difference is socially constructed along gender lines, and will explore intersections of gender, identity and power.
Offered every 2 years. 3 credits.

*WO/CM 350 Intercultural Communication

Prerequisite: CM 100

Introductory communication theory and practice across cultural groups defined by race, ethnicity, gender, religion, age, nationality, geography, politics, and economics.
Offered every 2 years. 3 credits.

*WO/ED 330 Elementary Social Studies and Multiculturalism (only for Elementary Education Majors)

Prerequisite: must be admitted to stage 2 in the elementary education program.

Goals, curriculum, skills, teaching strategies in educating culturally diverse populations in a global context.
Offered every year. 3 credits.

WO/EN 132 World Literature: Survey of Asian, African and Latin American Literature

LASC—Global Perspectives; Thought, Language and Culture; Diversity Across the Curriculum

Representative poems, stories, plays, both ancient and modern, from Africa, Asia, Latin America.
Offered every year. 3 credits.

WO/EN 172 Women and Literature

Explores basic issues and problems in literature by and about women.
Offered every 2 years. 3 credits.

WO/EN 174 Women Poets

A close reading and analysis of poetry written by women from a historical as well as contemporary feminist perspective.
Offered every 3 years. 3 credits.

WO/EN 345 Women in American Literature

Prerequisite: EN 102

The American woman as she is found in fiction, non-fiction, and poetry.
Offered every 3 years. 3 credits.

*WO/FR 341 Introduction to French Literature

LASC—Thought, Language and Culture; Diversity Across the Curriculum; Global Perspectives

Prerequisite: Two FR 200 level courses or equivalent

Major periods and genres of French literature: for majors and minors. Conducted in French.
Offered every 3 years. 3 credits.

WO/HC 234 Multiculturalism and Health

Examination of diverse ethnic/racial and cultural beliefs and practices affecting health and illness.
Offered every 2 years. 3 credits.

WO/HE 210 Women's Health Issues

Interactive processes of politics, power, and media influence on research and public health policies; current health issues are addressed.
Offered every year. 3 credits.

*WO/HI 191 ST: The History of Child Labor

A comparative history course that will analyze the socio-economic influence of industrialization, de-industrialization and globalization on children and young women, including the "Lowell Girls."

Offered every 3 years. 3 credits.

*WO/HI 209 Afro-American History

The role of blacks in American society from the seventeenth century to the present, emphasizing the institution of slavery.
Offered every 3 years. 3 credits.

*WO/HI 216 Economic History of the US

An introduction to United States economic development; particular attention will be paid to industrialization and the labor force
Offered every year. 3 credits.

*WO/HI 232 European Intellectual History II

Prerequisite: HI 103 or HI 104

The main theoretical frameworks, philosophic, psychological, and scientific, of the nineteenth and twentieth centuries.
Offered every 3 years. 3 credits.

*WO/HI 249 US Labor History I

The relationship between workers, their employers, and the surrounding community between 1815 and World War II.
Offered every 2 years. 3 credits.

WO/HI 270 Writings on Feminism in Historical Perspective

This course examines the writings of Euro-American male and female feminists who promoted the interests of women during the 16th - 19th centuries
Offered every 2 years. 3 credits.

WO/HI 274 Sex, Marriage and the Family in Historical Perspective

LASC—Thought, Language and Culture; Diversity Across the Curriculum

Prerequisite: HI 103 or HI 104 or HI 111 or HI 112

This course will undertake a study of courtship, marriage and family life-cycle patterns in England and America during the 19th century.
Offered every 2 years. 3 credits.

WO/HI 333 Women in Latin America

Prerequisite: HI 233 or equivalent

Examines the roles of women in diverse societies including Mexico, Brazil, and the Caribbean nations. Emphasis on the modern period.
Offered every other year. 3 credits.

WH/HI 350 Native American Women

Prerequisite: HI 205 or equivalent

Examines Indian Women from the time of European contact to the modern arena. Emphasizes culture, community and arenas of power.
Offered every other year. 3 credits.

*WO/HI 353 The Age of Reform: 1877-1920

Prerequisites: HI 111, HI 112

An analysis of the transformation of America, including the reform response to the Gilded Age's industrialization, urbanization, and immigration patterns.
Offered every 2 years. 3 credits.

WO/HI 372 The Evolution of Women's Rights

This course analyzes the evolution of Women's Rights with emphasis on its role in the twentieth century's International Law of Human Rights
Offered every 2 years. 3 credits.

*WO/HI 450 ST: New England History

A topical history course in which class, ethnic and gender changes will be considered in the pre-industrial, industrializing, industrial, de-industrializing and post-industrial periods in the six state region.
Offered every 3 years. 3 credits.

WO/MU 231 Women in Music

LASC—Thought, Language and Culture; Creative Arts
A survey of the role of women in music, particularly the great women composers from Medieval to Contemporary times.
Category 1. 3 credits.

*WO/NU 310 Nursing Science I

Prerequisites: NU 210; BI 262; SO 215 or SO 220
Corequisite: CH 240

Students will apply the nursing process when caring for the childbearing family and adult medical-surgical patients. Concepts of wellness, disease and health behaviors will be examined as the nursing process is operationalized in the care of adult medical-surgical patients and the childbearing family. Lecture and off-campus clinical experiences in maternal-child health nursing and medical-surgical nursing are included in this course.
Offered Fall semester every year. 8 credits.

WO/PH 150 Women in Western Ideas

LASC—Human Behavior and Social Processes;Thought, Language and Culture; Diversity Across the Curriculum

Investigates the concept of woman from ancient Greece to the present.
Offered every 2 years. 3 credits.

*WO/PH 240 Political Theory

LASC—Thought, Language and Culture; United States and Its Role in the World

Investigates concepts including political power, equality, revolution, liberties, slavery, socialism and liberalism, patriarchal power, race and gender
Offered every 3 years. 3 credits.

*WO/PH 241 Genocide and Human Rights

LASC—Global Perspectives; United States and Its Role in the World

This course treats the ethical, political, and other dimensions of systematic mass violence through case studies and general theoretical analysis.

Offered every 3 years. 3 credits.

WO/PH 250 Global Feminism

LASC—Global Perspectives; Thought, Language and Culture

Investigates the theoretical underpinnings of women's movements for equal rights around the globe
Offered every 2 years. 3 credits.

WO/PS 255 Psychological Foundations of Diversity

Prerequisite: PS 101

Explores the gender, racial/ethnic, multiple-group membership, cultural, social class, religious, disability and sexual orientation facets of diversity.
Offered every 3 years. 3 credits.

WO/PS 260 Psychology of Human Sexuality

Prerequisite: PS 101

Sexuality as a foundation of personality. The wide range of human sexuality is explored: sexual development, roles, attitudes and behaviors
Offered every 2 years. 3 credits.

WO/PS 263 Psychology of Women

Prerequisite: PS 101

Women's psychological development throughout the lifespan will be examined, including female development, achievement, stereotyping, stress, violence and psychological disorders.
Offered every 2 years. 3 credits.

*WO/PS 312 Psychology of Adolescence

Prerequisite: PS 101
The mental, emotional, social, and physical changes of contemporary adolescence are examined with emphasis on family, peer and school influences.
Offered every year, 3 credits

WO/PS 315 Physical and Sexual Abuse

Prerequisite: PS 101

Etiology, characteristics, consequences, treatment, and prevention of various forms of physical, sexual, and emotional abuse in children, adolescents, and adults.
Offered every 2 years. 3 credits.

WO/PS 335 Abnormal Psychology

Prerequisite: PS 101

Etiology, dynamics, and treatment of psychopathology and their relation to normal personality are considered from traditional and contemporary perspectives.
Offered every 2 years. 3 credits.

*WO/SO 205 Issues in American Society

Prerequisite: SO 100

Identification and analysis of current social issues facing contemporary American society, and critique of policies and programs designed to resolve these issues.
Offered every 2 years. 3 credits.

*WO/SO 240 Sociology of Education

Prerequisite: SO 100 or SO 110

Study of modern educational systems, emphasizing the social, political and economic factors that influence its organization and its functions.

Offered every 2 years. 3 credits.

WO/SO 285 Race, Class and Gender

An introduction to dominant-minority group relations through the investigation of the patterns and dynamics of differentiation, inequality and discrimination.
Offered every 3 years. 3 credits.

*WO/SO 300 Social Change

Prerequisites: Two courses at 200-level

A study of the conditions, patterns, and consequences of social transformations with emphasis on institutional and individual patterns of adjustments and adaptation.
Offered every 3 years. 3 credits.

*WO/SO 350 Social Stratification

Prerequisites: Two courses at 200-level

Investigation of the recurrent patterns of social differentiation, social ranking, and the unequal distribution of rewards.
Offered every 2 years. 3 credits.

WO/SO 355 Gender & Sexuality

LASC—Diversity Across the Curriculum; Human Behavior and Social Processes; Individual and Community Well-being
This course examines how social institutions and cultural norms construct particular gender roles and sexual identities within society.
Offered every year. 3 credits.

WO/UR 103 Introduction to Women's Studies

LASC—Diversity Across the Curriculum; Human Behavior and Social Processes; Individual and Community Well-being
This course uses a variety of academic disciplines to study the situation of women around the world.
Offered every year. 3 credits.

WO/UR 202 Aging in Metropolitan Society

An introduction to gerontology, stressing the social, economic and political aspects of aging in the urban environment.
Offered every 2 years. 3 credits.

WO/UR 216 Women and Aging in the Urban Environment

Investigation of the aging process for women in urban society, focusing on their great longevity, lower income status, and major caregiving role.
Offered every 2 years. 3 credits.

WO/UR 290 Gender and the City

LASC—Diversity Across the Curriculum; Human Behavior and Social Processes; Global Perspectives
Exploration of ways in which gender, both male and female, structures responses of individuals to urban life and urban spaces.
Offered every 2 years. 3 credits.

*WO/UR 360 Environmental Systems and Public Policy

Prerequisite: UR 101 or permission of instructor

Examination of urban ecosystems, focusing on land uses designed to effectively utilize water, open space and other natural resources.
Offered every 2 years. 3 credits.

WO/UR 380 Public Policy and Cultural Diversity

Prerequisite: UR 101

This course will examine contemporary policy issues and problems deriving from cultural diversity. These will include areas such as immigration, population, demographics, affirmative action, public assistance, integration, separatism, political correctness, gender equity, and the role of organized religion in contemporary politics.

Offered every 2 years. 3 credits.

WORCESTER STATE UNIVERSITY

WORCESTER STATE UNIVERSITY

SCHOOL OF EDUCATION, HEALTH AND NATURAL SCIENCES

Dean
Dr. Linda S. Larrivee

LOCATION

Kalyan K. Ghosh Science and Technology Building
First Floor, Room ST-101

Biology

Chemistry

Communication Sciences and Disorders

Computer Science

Earth Environment and Physics

Education
Dr. Raynold Lewis - Associate Dean of Education

Health Sciences

Mathematics

Nursing
Dr. Stephanie M. Chalupka - Associate Dean of Nursing

Occupational Therapy

Biology
Department of Biology

Faculty

Latifeh Amini-Kormi, Professor (1994)
B.S., Tehran University; Ph.D., University of Pennsylvania

Daron C. Barnard, Associate Professor (2006)
B.A., Middlebury College; Ph.D., Vanderbilt University

Peter M. Bradley, Professor (1993)
B.Sc., University of Aberdeen; Ph.D., Worcester Polytechnic Institute

Nirvana Filoramo, Assistant Professor (2011)
B.S., University of Massachusetts, Amherst; M.S., Iowa State University; Ph.D., University of Connecticut

Ellen F. Fynan, Professor (1993)
B.S., University of Maine; Ph.D., Thomas Jefferson University

Roger S. Greenwell, Assistant Professor (2014)
B.S., Western Kentucky University; Ph.D., University of Wisconsin-Madison

Jennifer Hood-DeGrenier, Associate Professor (2012)
B.A, Williams College; Ph.D., Harvard University

Steven J. Oliver, Professor (2003), Department Chair
B.A., University of Montana; Ph.D., Boston University

Maura Collins Pavao, Professor (2001)
B.S., Worcester Polytechnic Institute; M.S., Ph.D., Rutgers University

Maureen D. Shamgochian, Professor (1993)
B.S., Worcester State College; Ph.D., University of Massachusetts

Antonieto S. Tan, Professor (1993)
B.S., M.S., University of San Carlos; Ph.D., University of Southern Mississippi

Randall Tracy, Professor (2003)
B.S., M.S., University of Connecticut; Ph.D., Arizona State University

Sebastián Vélez, Assistant Professor (2012)
B.S., University of Puerto Rico; M.S., University of Notre Dame; Ph.D., Harvard University

The Biology program provides students with a broad knowledge in the biological sciences through a core curriculum and upper-level courses in specialized areas of study. A hands-on approach for teaching laboratory techniques and field work is emphasized. Throughout

the program, students are encouraged to develop effective communication skills and an awareness of the societal and global implications of biology. Both a major and minor in Biology are offered and, as part of the Biology major, students may choose to concentrate in Nuclear Medicine Technology or Bioinformatics. In addition, the pre-requisites necessary to meet the requirements of medical, dental and veterinary school as well as the Accelerated Pharmacy Program with MCPHS can be completed through the Biology major.

Undergraduate biology students who have demonstrated academic excellence and an interest in biological research may participate in the Honors in Biology program. The Chi Iota Chapter of the national biological honor society, Beta Beta Beta provides recognition to outstanding students majoring in Biology and Biotechnology.

Requirements for a Major in Biology

Required Biology courses: 38 credits

BI 140 Introduction to Organismal Biology
BI 141 Introduction to Cellular and Molecular Biology
BI 200 Human Biology
BI 202 Principles of Ecology
BI 203 Genetics
BI 204 Microbiology
BI 404 Biology Senior Seminar
3 Upper Division Electives (300 or 400 level lab courses)

Ancillary Requirements: 28-34 credits

MA 150
MA 180 or Higher

CH 120 & CH 121 General Chemistry I and II
CH 201 & CH 202 Organic Chemistry I and II
PY 221 & PY 222 General Physics I and II **or**
PY 241 & PY 242 Physics I and II

(Students who also complete CH 203 and CH 204 will earn a chemistry minor)

Upper division Biology electives

Cellular/Molecular Biology

BI 324 Endocrinology
BI 371 Molecular Biology
BI 372 Immunology
BI 375 Virology
BI 410 Biochemistry
BI 399 Biochemical Regulatory Mechanism
BI 398 Cancer Biology
BT 375 Tissue Culture
BT 376 Biotechnology
BT 378 Bioinformatics

Organismal Biology

BI 304 Comparative Vertebrate Anatomy
BI 306 Developmental Biology
BI 313 Histology
BI 315 Neurosciences
BI 321 Comparative Physiology
BI 340 Plant Sciences
BI 341 Mycology
BI 342 Plant Physiology
BI 360 Animal Behavior

Population and Environmental Biology

BI 301 Invertebrate Zoology
BI 302 Entomology
BI 303 Parasitology
BI 331 Marine Biology
BI 333 Vertebrate Natural History of Ectotherms
BI 334 Wildlife Investigative Techniques
BI 344 Soil Biology
BI 352 Symbiosis and Evolution
BI 380 Biodiversity and Conservation Biology

(**Note:** Pre-med and Graduate school candidates should also take CH 203 & CH 204 Organic Chemistry laboratory in addition to CH 201 and CH 202)

A minimum of three upper division laboratory courses (BI 300- or BI 400-level) are to be selected from three categories of Biology electives. No more than two courses from a single group can count toward major requirements. The courses should be selected with the advice and consent of the faculty advisor. A grade point average of 2.0 must be maintained in biology courses and in the ancillary science and mathematics courses. Students considering graduate and professional work should take, as a recommended minimum, calculus and introduction to computer science.

Department of Biology Sample Timeline for Completion of Degree

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
BI 140	Introduction to Organismal Biology	4
CH 120	General Chemistry I	4
EN 101	English Composition	3
MA 180	Introduction to Functions* (LASC QR)	3
LASC	First-Year Seminar	3
	Semester Subtotal	**17**

Semester Two		
Course No.	**Course Name**	**Credits**
BI 141	Introduction to Cellular and Molecular Biology	4
CH 121	General Chemistry II	4
EN 102	English Composition II	3
MA 150	Statistics (LASC QR)	3
	Semester Subtotal	**14**
Comments	EN 101 and 102 satisfies LASC Writing. Math Requirements: MA 180 requires an Accuplacer score of 5 or higher & MA 150 requires an Accuplacer score of 4 or higher *or higher.	

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
CH 201	Organic Chemistry I	3
LASC	Distribution Elective (ICW*)	3
BI 200	Human Biology	4
LASC	US Constitution	3
LASC	Distribution Elective (USW*)	3
	Semester Subtotal	**16**

Semester Four		
Course No.	**Course Name**	**Credits**
CH 202	Organic Chemistry II	3
BI 204	Microbiology	4
LASC	Distribution Elective (GP*)	3
LASC	Distribution Elective (CA*)	3
SELECT	General Elective	3
	Semester Subtotal	**16**
Comments	Pre-med and Graduate school candidates should also take CH 203 & CH 204 Organic Chemistry Laboratory in addition to CH 201 and CH 202. 200 level Biology courses may be taken in any order.	

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
BI 202	Principles of Ecology	4
PY 221	*General Physics	4
LASC	Ancillary or LASC Distribution	3
LASC	Distribution Elective (TLC*)	3
	Semester Subtotal	**14**

Semester Six		
Course No.	**Course Name**	**Credits**
BI 203	Genetics	4
BI	300 or 400 Major Elective	3
PY 222	General Physics II	4
LASC	Distribution Elective (HBS*)	3
	Semester Subtotal	**14**
Comments	Physics Requirements: PY 221 & PY 222 or PY 241 & PY 242 satisfies LASC NSP.	

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
BI	300 or 400 Major Elective	4
Major	Additional Science	4
BI 404	Biology Senior Seminar	2
SELECT	General Elective	3
LASC	Distribution Elective	3
	Semester Subtotal	**16**

Semester Eight		
Course No.	**Course Name**	**Credits**
BI	300 or 400 Major Elective	4
Major	Additional Science	4
BI 404	Biology Senior Seminar	2
LASC	Distribution Elective	3
	Semester Subtotal	**13**
Comments		

TOTAL CREDITS= 121

Note: The sequence of LASC courses marked with * is a suggestion but serves as a reminder that LASC designated courses must be taken to satisfy the LASC requirements.

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

Honors Program in Biology

The Honors Program in Biology is designated as a distinction bestowed on those outstanding undergraduate Biology majors who have demonstrated distinct competence in overall biology course work and who have completed an independent research project of substantial merit. This program offers motivated students the opportunity to develop research and communication skills in preparation for graduate school or a professional career.

Requirements for the Honors Program in Biology

All courses required for the major in Biology, plus:
BI 205 Research Methods and Experimental Design (2 credits)
BI 402 Independent Study in Biology (3-5 credits)*
Written thesis describing original research

**"Commendation in Biology" requires 3 credits of BI 402 Independent Study in Biology and a minimum 3.0 GPA in biology courses. "Honors in Biology" requires 5 credits of BI 402 Independent Study in Biology and a minimum of 3.5 GPA in biology courses.*

For more information and specific program requirements, contact Dr. Randall Tracy in the Department of Biology.

Requirements for a Minor in Biology

BI 140	Introduction to Organismal Biology
BI 141	Introduction to Cellular and Molecular Biology

Four additional 200-level or higher Biology or Biotechnology laboratory courses.

Requirements for a Major in Biology, Concentration in Nuclear Medicine Technology:
48 credits

Worcester State University offers, in conjunction with the University of Massachusetts Medical School, a concentration in Nuclear Medicine Technology (NMT), administered by a program advisory committee and accredited by the Joint Review Committee on Educational Programs in Nuclear Medicine Technology.

Nuclear medicine is a study of techniques developed in hospitals, particularly in radiology, pathology and internal medicine departments. These techniques are used for both diagnostic and therapeutic purposes. Students interested in being considered candidates for admission to the program should contact either the program coordinator or the nominating committee as early in their college career as possible. The program is limited to a relatively small number of students.

Prerequisites for the program include successful completion of:

BI 161 & BI 162	Human Anatomy and Physiology I and II
CH 120 & CH 121	General Chemistry I and II
PY 221 & PY 222	General Physics I and II **or**
PY 241 & PY 242	Physics I, II

Math Requirement

Two math courses based on Accuplacer scores and Departmental Major Requirements selected as a minimum from these four courses:

MA 180	Introduction to Functions
MA 190	Precalculus
MA 200	Calculus I
MA 201	Calculus II

Note: MA 150 Statistics is not acceptable. Higher level math courses that require Calculus as a prerequisite are acceptable. MA 150 Statistics must be completed for the Biology Major.

Candidates must visit the Medical School Nuclear Medicine Department and file intent to enroll forms with the Worcester State University Nuclear Medicine Technology coordinator prior to being considered a candidate for the program.

Technical specialty courses of the NMT Program are:

Introduction and Hospital Orientation (no credit)

BI 252	Radiation Biology
BI/PY 451 & BI/PY 452	Nuclear Instrumentation I and II
BI 461, BI 462, BI 463, & BI 464	NMT Clinical Practicum I, II, III and IV
BI/CH 453	Radiopharmaceuticals
BI/CH 465 & BI/CH 466	Clinical Nuclear Medicine Technology I and II

Students majoring in Biology, Biotechnology, Chemistry or Natural Science may pursue the Concentration in Nuclear Medicine Technology.

Major in Biology, Concentration in Bioinformatics

The purpose of this interdisciplinary concentration is to prepare students to enter the computer-intensive fields of bioinformatics, computational biology, computational chemistry, and molecular modeling including genomics and proteomics. With the ever increasing number of fully sequenced genomes, including the human genome, databases such as GenBank and EMBL have grown at such a rate that storing, organizing, indexing, and ultimately mining the data have become key to answering biological questions. Questions of gene expression have led to computational biology, the process of analyzing genomic sequences and to the field of proteomics, the understanding of protein structure and function. The information obtained by computational biology and computational chemistry is used in the design of new drugs to treat a variety of diseases. Major drug and biotechnology companies are seeking people trained in bioinformatics.

In addition to the requirements for the Major in Biology:

BT 378	Bioinformatics*	4
CS 101	Basics of Computer Science	3
CS 140	Introduction to Programming	4
CS 242	Data Structures	3
CS 282	UNIX Systems Programming	3
CS 265	Database Applications	3

*BT 378 Bioinformatics fulfills an upper division Cellular/Molecular Biology elective. (requires BI 141 or BI 203 as a prerequisite)

Requirements for a Major in Biology and to meet the prerequisites for the Accelerated Pharmacy Program with Massachusetts College of Pharmacy and Health Science
(Please see program description in this catalog.)

All of the courses listed for a major in biology plus:

CH 203	Organic Chemistry Laboratory I
CH 204	Organic Chemistry Laboratory II

Department of Biology: WSU/MCPHS 3+3 Curriculum Guide for Biology Majors Sample Timeline for Completion of Degree

YEAR ONE

Fall Semester 1st Year		
Course No.	**Course Name**	**Credits**
EN 101	English Composition I	3
CH 120	General Chemistry I	4
BI 140	Introduction to Organismal Biology	4
LASC	First-Year Seminar	3
LASC	Distribution Elective	3
	Semester Subtotal	**17**

Spring Semester 1st Year		
Course No.	**Course Name**	**Credits**
EN 102	English Composition II	3
CH 121	General Chemistry II	4
BI 141	Introduction to Cellular and Molecular Biology	4
MA 150	Statistics (QR)	3
LASC	Distribution Elective (Constitutions)	3
	Semester Subtotal	**17**
Comments	Winter session or Summer after 1st and 2nd years: one course that meets LASC requirements (6 credits total) LASC requirements should include: Introduction to Psychology, Introduction to Sociology, a course that fulfills the Constitutions, Economics, and an upper level (beyond first semester) behavioral science (Psychology or Sociology)	

YEAR TWO

Fall Semester 2na Year		
Course No.	**Course Name**	**Credits**
BI 203	Genetics (QRAC)	4
CH 201/203	Organic Chemistry I w/Lab	5
PY 221* or 241	General Physics I or Physics I	4
LASC	Distribution Elective (HBS)	3
	Semester Subtotal	**16**

Spring Semester 2nd Year		
Course No.	**Course Name**	**Credits**
BI 204	Microbiology	4
CH 202/204	Organic Chemistry II w/Lab	5
PY 222* or 242	General Physics II or Physics II	4
LASC	Distribution Elective (ICW)	3
	Semester Subtotal	**16**
Comments	PY 241 and PY 242 can be taken in place of PY 221 and PY 222, however these should be taken concurrently or after calculus. The 200 level Biology courses may be taken in any order.	

YEAR THREE

Fall Semester 3rd Year		
Course No.	**Course Name**	**Credits**
BI 200	Human Biology	4
MA 200	Calculus I	4
LASC	Distribution Elective (USW)	3
LASC	Distribution Elective (GP)	3
BI 202	Ecology (WAC)	3
	Semester Subtotal	**17**

Spring Semester 3rd Year		
Course No.	**Course Name**	**Credits**
LASC	Distribution Elective (CA)	4
BI 404	Biology Seminar	2
MA 201	Calculus II	4
LASC	Distribution Elective (TLC)	3
LASC	Distribution Elective (DAC)	3
	Semester Subtotal	**16**
Comments	Total Credits taken at WSU=105. Remaining credits are transferred from MCPHS and fulfill upper level biology electives.	

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

Biology Courses (Undergraduate)

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

BI 101 Concepts of Biology

LASC—Natural Systems and Processes

Unifying principles in biology; diversity and evolution of plant and animal life at cellular and organismic levels. Three lecture hours and a two hour laboratory per week
Offered every year. 4 credits.

BI 111 Social Biology

LASC—Human Behavior and Social Processes; Natural Systems and Processes

This course considers the interface between current biological technologies and the social, cultural, legal, and moral postures of modern man.
Offered every year. 3 credits.

BI 112 Diseases and Mankind

LASC— Global Perspectives; Natural Systems and Processes

Diseases of ancient and modern man; the impact on history, religion, science, art and philosophy.
Offered every year. 3 credits.

BI 114 Plants and Human Affairs

LASC—Global Perspectives; Natural Systems and Processes

Man's dependence upon plants and their influence on civilization and its art, religions, literature, folklore, medicine, and human behavior.
Offered every 2 years. 3 credits.

BI 116 Animal Biology

LASC—Natural Systems and Processes

Survey of animal kingdom with emphasis on animal diversity, morphology, life histories, ecological and evolutionary relationships. Three lecture hours and two laboratory hours per week.
Offered every year. 4 credits.

BI 117 Humans and the Environment

LASC—Natural Systems and Processes

A survey of anthropogenic environmental impacts and the underlying mechanisms involved. Three lecture hours and three laboratory hours per week.
Offered every 3 years. 4 credits.

BI 118 Dinosaurs

LASC—Natural Systems and Processes

A survey of dinosaurs; their evolution, anatomy, diversity and impact on evolutionary biology. Discussions of the changing views of dinosaurs in the media and public consciousness. Three lecture hours and two laboratory hours per week.
Offered every 3 years. 4 credits.

BI 120 Darwinian Revolution

LASC—Thought, Language and Culture, Natural Science and Processes

An interdisciplinary perspective on the philosophical, religious, and social impacts of Darwin's theory of evolution by the process of natural selection.
Offered every 2 years. 3 credits.

BI 140 Introduction to Organismal Biology

LASC—Natural Systems and Processes

Evolution, ecology, anatomy, physiology and diversity of organisms. Three lecture hours and three laboratory hours per week.
Offered every year. 4 credits.

BI 141 Introduction to Cellular and Molecular Biology

LASC—Natural Systems and Processes

Prerequisite: CH 120

Cellular and molecular concepts in biology. Emphasis on the structure and varied functions of the cell. Three lecture hours and three laboratory hours per week.
Offered every year. 4 credits.

BI 161 Human Anatomy and Physiology I

Considers human cellular biology, tissues, integumentary, nervous, skeletal and muscular systems. Three lecture hours and three laboratory hours per week.
Offered every year. 4 credits.

BI 162 Human Anatomy and Physiology II

LASC—Natural Systems and Processes

Prerequisite: BI 161

Considers endocrine, digestive, respiratory, cardiovascular, urinary, immune and lymphatic systems; water and electrolyte balance, reproduction and embryology. Three lecture hours and three laboratory hours per week.
Offered every year. 4 credits.

BI 193 Special Topics in Biology for First-Year Students

All "193" courses are approved for LASC but may vary by section. See current course listing for specific LASC area approval.

Introductory level course covering topics of special interest to first-year students. Offered only as a First-Year Seminar.
Offered every year. 3 credits.

BI 199 Selected Topics in Biological Sciences

Each topic is a lecture and/or laboratory course in a selected area of the biological sciences presented by a departmental instructor. Topics will be announced in advance.
Offered every year. 1-4 credits.

BI 200 Human Biology

Prerequisites: BI 140, BI 141

A systemic approach to the study of human biology. The course will emphasize structure/functional relationships and homeostatic mechanisms. Three hour lecture and three hour lab.
Offered every year. 4 credits.

BI 202 Principles of Ecology

LASC—Writing Across the Curriculum

Prerequisites: BI 140, EN 102, MA 150 or MA 180 or MA 190 or MA 200

Ecological theory relating to organism-environment interactions; population dynamics and ecosystems. Includes fieldwork. Three lecture hours and three laboratory hours per week.

Offered every year. 4 credits.

BI 203 Genetics

LASC—Quantitative Literacy Across the Curriculum

Prerequisites: BI 141, minimum Accuplacer score of 3

Introductory genetics with examples of human inheritance and recent developments in genetic engineering. Three lecture hours and three laboratory hours per week.
Offered every year. 4 credits.

BI 204 Microbiology

Prerequisites: BI 141 and CH 121 or consent of instructor

The structure and replication of microorganisms. Infectious diseases and immune responses are emphasized. Three lecture hours and three laboratory hours per week.
Offered every year. 4 credits.

BI 205 Research Techniques and Experimental Design

Prerequisites: BI 140, BI 141, MA 150

Investigations in experimental design and research methodologies required for the Honors program in Biology. Two lecture hours per week.
Offered every year. 2 credits.

BI 206 Medical Microbiology

LASC—Natural Systems and Processes

Prerequisite: BI 161, CH 112 or CH 120; Co-requisite: BI 162

A study of growth and control of pathogenic microorganisms with emphasis on infectious disease transmission, immune responses, prevention and treatment. Three lecture and three laboratory hours per week.
Offered every year. 4 credits.

BI 252 Radiation Biology

Prerequisites: BI 140/BI 141 or BI 162

Basic theories of interaction of ionizing radiations with living and non-living matter; industrial and clinical applications.
Offered every 3 years. 3 credits.

BI 266 Biology of Aging

Considers characteristics of the aging process utilizing the newest theories based upon dynamics, function and metabolic regulations, disease and the acceleration of the aging process.
Offered every 3 years. 3 credits.

BI 271 Basic Kinesiology

LASC—Natural Systems and Processes

Prerequisites: BI 161

Structure and function of human skeletal muscles in relation to motion and general body mechanics under normal and stress conditions.
Offered every year. 3 credits.

BI 301 Invertebrate Zoology

Prerequisites: BI 140 and BI 202

Considers anatomy, taxonomy (including selected articles of the International Code of Zoological Nomenclature), natural history, and evolutionary relationships of selected invertebrate phyla. Three lecture hours and three laboratory hours per week.
Offered every 2 years. 4 credits.

BI 302 Entomology

Prerequisite: BI 140 and BI 202

Considers insects and their allies, chemical and biological control, and special references to agricultural pests and medical entomology. Three lecture hours and three laboratory hours per week.
Offered every 3 years. 4 credits.

BI 303 Parasitology

Prerequisite: BI 140, BI 200 or BI 161/162

Basic concepts in symbiology, life cycles, epidemiology, disease development, control and prevention of selected human parasites. Three lecture hours and three laboratory hours per week.
Offered every 2 years. 4 credits.

BI 304 Comparative Vertebrate Anatomy

Prerequisites: BI 140, BI 202 or BI 161/162

Considers prochordate and chordate taxonomy and phylogeny; systematic morphological comparison of representative chordates to establish homology, analogy, and evolution. Three lecture hours and three laboratory hours per week.
Offered every 3 years. 4 credits.

BI 306 Developmental Biology

Prerequisites: BI 140, BI 141 and BI 203

Study of developmental patterns, cellular differentiation and cell interactions resulting in cellular diversity, organization, and perpetuation of the germ line. Three lecture hours and three laboratory hours per week.
Offered every 3 years. 4 credits.

BI 313 Histology

Prerequisites: BI 141, BI 200 or BI 161/162

The structure and function of animal tissues. Each student is required to prepare tissues using histological methods. Three lectures hours and three laboratory hours per week.
Offered every 2 years. 4 credits.

BI/NS 315 Neurosciences

Prerequisites: BI 161, BI 162 or BI 200

Structural and functional organization of the central and peripheral nervous system. Principles of normal and abnormal transmission, integration, and storage of information in neuronal pathways. Three lecture hours and three laboratory hours per week
Offered every year. 4 credits.

BI 321 Comparative Physiology

Prerequisites: BI 140, BI 141, BI 200 or BI 161/162

A comparison of select physiological functions of different animal taxa with mammals used as a reference. Three lecture hours and three laboratory hours per week.
Offered every 2 years. 4 credits.

BI 324 Endocrinology

Prerequisites: BI 140, BI 141, BI 200 or BI 161/162

The role of endocrine glands in the normal integration of animals; mechanisms of hormone action, function, and interrelationships. Three lecture hours and three laboratory hours per week.
Offered every 2 years. 4 credits.

BI 331 Marine Biology

Prerequisites: BI 140 and BI 202

Considers the marine environment, its flora and fauna, distribution and production of plankton-nekton-benthos; zoogeography, bioeconomic factors and potential. Three lecture hours and three laboratory hours per week.
Offered every 2 years. 4 credits.

BI 333 Vertebrate Natural History of Ectotherms

Prerequisites: BI 140, BI 202

Life histories, adaptations, distribution, systematics, and economic importance of ectothermic (cold-blooded) vertebrates (fish, amphibians, and reptiles) in northeastern U.S. Three lecture hours and three laboratory hours per week.
Offered every 2 years. 4 credits.

BI 334 Wildlife Investigative Techniques

Prerequisites: BI 140 and BI 202

Considers procedures for collection and analysis of field and laboratory data on vertebrate game populations useful to wildlife biologists. Three lecture hours and three laboratory hours per week.
Offered every 2 years. 4 credits

BI 340 Plant Sciences

Prerequisites: BI 140, BI 141, BI 202

Morphology, anatomy, physiology of flowering plants with studies on life cycles, ecological relationships, biochemical processes and evolution of plant diversity. Three lecture hours and three laboratory hours per week.
Offered every 3 years. 4 credits.

BI 341 Mycology

Prerequisite: BI 140 and BI 202

The morphology, cytology, and evolution and classification of the fungi. Three lecture hours and three laboratory hours per week.
Offered every 2 years. 4 credits.

BI 344 Soil Biology

Prerequisites: BI 140, BI 141, BI 204, CH 120, CH 121

Includes study of nutrient cycling, relations between plants, animals and microbes, ecology of polluted soils and soil biotechnology. Three lecture hours and three laboratory hours per week.
Offered every 3 years. 4 credits.

BI 352 Symbiosis and Evolution

Prerequisites: BI 140, BI 141, BI 204

Origin and nature of microbial life, evolution of multicellular organisms and the central role played by biological symbioses. Lecture and Laboratory. Three hours of lecture and three laboratory hours per week.
Offered every 2 years. 4 credits

BI 360 Animal Behavior

Prerequisite: BI 140, BI 202

Survey of ethology and behavioral ecology from an historical and evolutionary perspective. Laboratory involves observation and recording of animal behavior. Three lecture hours and three laboratory hours per week.
Offered every year. 4 credits

BI 371 Molecular Biology

Prerequisites: BI 141 and BI 203; or CH/BI 410

Modern perspectives on biological macromolecules and information pathways linking them to cellular functions; emphasis on experimental techniques and ethical considerations. Three lecture hours and three laboratory hours per week.
Offered every 3 years. 4 credits.

BI 372 Immunology

Prerequisites: BI 140, BI 141, BI 204

Study of immune system elements and defense mechanisms. Immunological disorders will be discussed. Three lecture hours and three laboratory hours per week.
Offered every 2 years. 4 credits.

BI 375 Virology

Prerequisites: BI 140, BI 141 and BI 204

Physical structure and replication schemes of viruses; role of viruses in human disease, research and commercial applications. Three lecture hours and three laboratory hours per week.
Offered every 3 years. 4 credits

BT 375 Tissue Culture

Prerequisite: CH 120, CH 121

A review of the methods of animal and plant tissue culture. Media preparation, aseptic techniques and cell culture technology. Three lecture hours and three laboratory hours per week.
Offered every year. 4 credits.

BT 376 Biotechnology

Prerequisite: CH 120, CH 121, BI 141

Principles and applications of recombinant DNA (molecular & microbial aspects). The Biotechnology Industry, including bioreactor manufacturing standards and government rules. Three lecture hours and three laboratory hours per week.
Offered every year: 4 credits.

BT 378 Bioinformatics

Prerequisites: BI 141 or BI 203

Provides an overview of Bioinformatics including database structure, genomics, computational biology and proteomics.
Offered every 2 years. 4 credits.

BI 380 Biodiversity and Conservation Biology

Prerequisites: BI 140, BI 141, BI 202, BI 203

A theoretical and quantitative approach to species, genetic, ecosystem and community diversity in the context of modern conservation biology principles.
Offered every 3 years. 4 credits

BI 398 Cancer Biology

Prerequisites: BI 141, BI 203

Cellular and molecular basis of cancer, including cancer genetics, biochemical pathways related to cancer, and modern treatment approaches. Three lecture hours and three laboratory hours per week.
Offered every 3 years. 4 credits

BI 399 Biochemical Regulatory Mechanisms

Prerequisites: BI 141 and BI 203; or CH/BI 410

Examination of the many biochemical mechanisms that regulate gene expression and protein function, with an investigative lab project. Three lecture hours and three laboratory hours per week.
Offered every 3 years. 4 credits

BI 401 Selected Topics in Biological Sciences

Prerequisites: Consent of department and instructor

Each topic is a lecture and/or laboratory course in a selected area of the biological sciences presented by a departmental instructor and/or guest lecturers when appropriate; topic announced in advance.
Offered every 3 years. 1-4 credits.

BI 402 Independent Studies In Biology

Prerequisites: Consent of department and instructor

Advanced semi-independent study (by qualified upper-level Biology majors) of an approved biological problem. Faculty supervision required.
Offered every year. 1-6 credits.

BI 403 Biology Internship

Prerequisite: Consent of department

Intended for qualified, upper-level biology majors. Faculty advisor required. (May not be used for major requirements.)
Offered every year. 1-6 credits.

BI 404 Biology Senior Seminar

LASC - Major Capstone

Prerequisite: Senior Standing, BI 202, BI 203, BI 204, and BI 200 or BI 161/162

Preparation and presentation of biological topics, chosen with the advice and consent of a faculty advisor. Capstone course for Biology majors.
Offered every year. 2 credits.

BI/CH 410 Biochemistry I

Prerequisite: CH 201, CH 202

The chemistry of proteins, nucleic acids, carbohydrates, and lipids; enzymes, biological oxidations; and correlations in intermediary metabolism. Three lecture hours and three laboratory hours per week.
Offered every 2 years. 4 credits.

BI/CH 411 Biochemistry II

Prerequisite: BI/CH 410

The generation and storage of metabolic energy; biosynthesis of macromolecular precursors, DNA, RNA, and protein; and biochemical regulation. Three lecture hours and three laboratory hours per week.
Offered every 2 years. 4 credits.

BI/PY 451 Nuclear Instrumentation I

Prerequisite: Consent of NMT coordinator

Structure, functions, and interactions of particulate and nonparticulate radiations with matter; detection, calibration, dosage, and statistical methods.
Offered every year. 4 credits.

BI/PY 452 Nuclear Instrumentation II

Prerequisite: Consent of NMT coordinator

Designed to further the skills of operating, calibrating, and performing routine maintenance on scanners, gamma cameras, well-counters, and liquid scintillation counters.
Offered every year. 4 credits.

BI/CH 453 Radiopharmaceuticals

Prerequisite: Consent of NMT coordinator

Fundamental concepts of radiopharmaceutical production and use; includes basic radiochemistry.
Offered every year. 4 credits.

BI 461/BI 462 NMT Clinical Practicum I and II

Prerequisite: Consent of NMT coordinator

Students will spend several days a week in a hospital observing the ongoing activities and procedures of a nuclear medicine facility.
Offered every year. BI 461, 2 credits; BI 462, 4 credits.

BI 463 NMT Practicum III

Prerequisite: Consent of NMT coordinator

Guided and supervised by clinical instructors, students begin to acquire manual skills essential to nuclear medicine technology; and in performing all routine nuclear medicine examination and laboratory procedures.
Offered every year. 6 credits.

BI 464 NMT Practicum IV

Prerequisite: Consent of NMT coordinator

Upon completion of this practicum, students should be skilled in performing both routine and non-routine nuclear medicine examinations and laboratory procedures.
Offered every year. 8 credits.

BI/CH 465 Clinical Nuclear Medicine Technology I

Prerequisite: Consent of NMT coordinator

Considers why a specific test is indicated; which radiopharmaceutical is preferred; and how the basic image appearance, and/or numerical data may be altered by pathological states.
Offered every year. 4 credits.

BI/CH 466 Clinical Nuclear Medicine Technology II

Prerequisite: Consent of NMT coordinator

Case presentations using formulas, charts, tables, and calculations to arrive at examination parameters such as dose, number of counts, speed of instrument, etc.
Offered every year. 4 credits.

Biotechnology
Department of Biology

Faculty

Peter M. Bradley, Professor (1993)
B.Sc., University of Aberdeen; Ph.D., Worcester Polytechnic Institute

Maura Collins Pavao, Professor (2001)
Coordinator of the Biotechnology Program
B.S., Worcester Polytechnic Institute; M.S., Ph.D., Rutgers University

Roger S. Greenwell, Sr., Assistant Professor (2014)
B.S., Western Kentucky University; Ph.D., University of Wisconsin-Madison

Steven J. Oliver, Professor (2003), Department Chair
B.A., University of Montana; Ph.D., Boston University

Worcester State University offers a program in biotechnology to meet the need for skilled laboratory associates in the experimental laboratory and in manufacturing facilities of the biotechnology industry. Biotechnology graduates are trained in tissue culture, molecular biology, protein purification, analytical chemistry, regulatory affairs and are eligible for internships.

Graduates are qualified for careers in research and development, quality assurance, quality control, and manufacturing as well as for further (graduate) eduction.

The Biotechnology major is sponsored jointly by the departments of Biology and Chemistry.

Requirements for a Major in Biotechnology

BI 141	Introduction to Cell and Molecular Biology	4
BI 204	Microbiology	4
BT 375	Tissue Culture	4
BT 376	Biotechnology	4
BT 410	Biotechnology Seminar	1
CH 120 & CH 121	General Chemistry I & II	8
CH 201 & CH 203	Organic Chemistry I, plus Lab	5
CH 210	Chemical Analysis	4
CH 410	Biochemistry I	4

Plus two major electives that include:

Major Electives

BI 372	Immunology	4
BI 371	Molecular Biology	4
BI 252	Radiation Biology	4
BI 375	Virology	4
CH 350	Medicinal Chemistry	3
CH 202	Organic Chemistry II	3
CH 204	Organic Chemistry II Lab	2
PY 310	Modern Physics	3
CH 411	Biochemistry II	4
BI 341	Mycology	4
BT 377	Fermentation Technology	4
BT 378	Bioinformatics	4

And certain other BI 300, CH 300 and PY 300 level courses with departmental approval.

In addition, majors are expected to complete the following ancillary courses:

MA 190 Precalculus (may be waived), MA 200 Calculus I, MA 201 Calculus II or BI 203 Genetics, MA 150 Statistics, PY 221 & PY 222 General Physics I & II, or PY 241 and 242, Physics I and II, CS 120 Microcomputer Applications, EN 252 Technical Writing or EN 253 Business Communications.

Department of Biology: Biotechnology Sample Timeline for Completion of Degree

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
EN 101	English Composition I	3
CH 120	General Chemistry I	4
MA 180 or MA 190	Introduction to Functions, or PreCalculus (LASC QR)	4
HI	U.S. Constitution (LASC HBS)	3
LASC	First-Year Seminar	3
	Semester Subtotal	**17**

Semester Two		
Course No.	**Course Name**	**Credits**
EN 102	English Composition II	3
CH 121	General Chemistry II	4
MA 190 or MA 200	Precalculus or Calculus I (LASC QR)	4
BI 141	Introduction to Cell and Molecular Biology (LASC NSP)	4
	Semester Subtotal	**15**
Comments	EN 101 and 102 satisfies LASC writing. MA 180 requires and Accuplacer score of 5 or higher.	

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
CH 201	Organic Chemistry I	3
CH 203	Organic Chemistry I Lab	2
BI 203 or MA 201	Genetics or Calculus I (LASC QRAC)	4
LASC	Distribution Elective (ICW*)	3
LASC	Distribution Elective (HBS*)	3
	Semester Subtotal	**15**

Semester Four		
Course No.	**Course Name**	**Credits**
BI 204	Microbiology	4
MA 150	Statistics	3
EN 242 or EN 253 or CS 110	Technical Writing or Business Communications or Microcomputer Applications	3
LASC or CH 202/204	Distribution Elective or Organic Chemistry II+Lab	3-5
LASC	Distribution Elective or Calculus II	3-4
	Semester Subtotal	**16-18**
Comments	MA 150 requires an Accuplacer score of 4 or higher.	

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
BT 376	Biotechnology	4
PY 221 or 241	General Physics I or Physics I (NSP)	4
LASC	Distribution Elective (TLC*)	3
LASC	Distribution Elective (CA*)	3
	Semester Subtotal	**14**

Semester Six		
Course No.	**Course Name**	**Credits**
BT 375	Tissue Culture	4
PY 222 or 246	General Physics II or Physics II (NSP)	4
LASC	Distribution Elective (GP*)	3
LASC	Distribution Elective (USW*)	3
	Semester Subtotal	**14**

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
CH 210	Chemical Analysis	4
BI/BT	Upper Level Elective	4
LASC	Distribution Elective*	3
LASC	Distribution Elective (WAC*)	3
	Semester Subtotal	**14**

Semester Eight		
Course No.	**Course Name**	**Credits**
BT 450 or BI 401	Internship or Independent Research Project or upper elective	4-6
BT 410	Biotechnology Seminar	1
CH 410	Biochemistry	4
LASC	Distribution Elective (QLAC*)	3
LASC	Distribution Elective (DAC*)	3
	Semester Subtotal	**14-17**

TOTAL CREDITS= 120-125

Note: The sequence of LASC courses marked with * is a suggestion but serves as a reminder that LASC designated courses must be taken to satisfy the LASC requirements.

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

Requirements for a Major in Biotechnology and to meet the prerequisites for the Accelerated Pharmacy Program with Massachusetts College of Pharmacy and Health Science University (MCPHSU) *(Please see program description in this catalog.)*

All of the courses listed for a major in biotechnology plus:

BI 140	Introduction to Organismal Biology
BI 141	Introduction to Cellular and Molecular Biology
CH 202	Organic Chemistry II
CH 204	Organic Chemistry Laboratory II

Major in Biotechnology, Concentration in Bioinformatics

The purpose of this interdisciplinary concentration is to prepare students to enter the computer-intensive fields of bioinformatics, computational biology, computational chemistry, and molecular modeling including genomics and proteomics. With the ever increasing number of fully sequenced genomes, including the human genome, databases such as GenBank and EMBL have grown at such a rate that storing, organizing, indexing, and ultimately mining the data have become key to answering biological questions. Questions of gene expression have led to computational biology, the process of analyzing genomic sequences and to the field of proteomics, the understanding of protein structure and function. The information obtained by computational biology and computational chemistry is used in the design of new drugs to treat a variety of diseases. Major drug and biotechnology companies are seeking people trained in bioinformatics.

In addition to the requirements for the Major in Biotechnology:

BT 378	Bioinformatics*	4
CS 101	Basics of Computer Science	3
CS 140	Introduction to Programming	4
CS 242	Data Sructures	3
CS 282	UNIX Systems Programming	3
CS 265	Database Applications	3

Requirements for a Major in Biotechnology, Concentration in Nuclear Medicine Technology: See program description under Biology.

Honors Program in Biotechnology

The Honors Program in Biotechnology is designated as a distinction bestowed on those outstanding undergraduate Biotechnology majors who have demonstrated distinct competence in overall biotechnology course work and who have completed an independent research project of substantial merit. This program offers motivated students the opportunity to develop research and communication skills in preparation for a graduate or professional career.

Requirements for the Honors Program in Biotechnology

- A written thesis describing the student's **original research**
- Grade point average in science courses of at least **3.5**
- Successful completion of BI 205, Research Techniques and Experimental Design
- Enrollment in a minimum of one semester of independent study credit (BI 402 Independent Study) totaling at least 4 credits

Combined BS/MS Program in Biotechnology

The Five Year Combined BS/MS in Biotechnology is open to eligible students and consist of three graduate courses (10 credits) that count toward both degrees. These three courses are Biotechnology and DNA (BI 921), Tissue Culture (BI 927), and a graduate elective. Also, students begin a research project in the Spring semester of the fourth (senior) year. Application requirements include a minimum of 3.0 GPA, two letters of recommendation and the GRE.

Recommended Timeline for Completion of BS/ MS Program: Biotechnology

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
EN 101	English Composition I	3
CH 120	General Chemistry I	4
MA 180 or MA 190	Introduction to Functions, or Precalculus (LASC QR)	4
LASC	U.S. Constitution	3
LASC	Freshman First-Year Seminar	3
	Semester Subtotal	**17**

Semester Two		
Course No.	**Course Name**	**Credits**
EN 102	English Composition II	3
CH 121	General Chemistry II	4
MA 190 or MA 200	Precalculus or Calculus I	4
BI 141	Introduction to Cell and Molecular Biology	4
	Semester Subtotal	**15**

YEAR TWO

Semester One		
Course No.	**Course Name**	**Credits**
CH 201	Organic Chemistry I	3
CH 203	Organic Chemistry I Lab	2
BI 204	Microbiology	4
MA 200	Calculus I	4
LASC	Distribution Elective (HBS*)	3
	Semester Subtotal	**15**

Semester Two		
Course No.	**Course Name**	**Credits**
BI 203 or MA 201	Genetics or Calculus II	4
MA 150	Statistics	3
EN 242 or EN 253 or CS 110	Technical Writing or Business Communications or Microcomputer Applications	3
LASC or CH 202/204	Distribution Elective or Organic Chemistry II+Lab	3-5
LASC	Distribution Elective or Calculus II	3-4
	Semester Subtotal	**16-18**

YEAR THREE

Semester One		
Course No.	**Course Name**	**Credits**
BI/BT	Upper Level Elective	4
PY 221	Physics I	4
LASC	Distribution Elective	3
LASC	Distribution Elective	3
	Semester Subtotal	**14**

Semester Two		
Course No.	**Course Name**	**Credits**
BI/BT	Upper Level Elective	4
PY 222	Physics II	4
CH 210	Chemical Analysis	3
LASC	Distribution Elective	3
	Semester Subtotal	**14**

YEAR FOUR

Semester One		
Course No.	**Course Name**	**Credits**
BI 921	Biotechnology and DNA	4
LASC	Distribution Elective	3
LASC	Distribution Elective	3
BI	Graduate Elective	3
	Semester Subtotal	**13**

Semester Two		
Course No.	**Course Name**	**Credits**
BI 927	Tissue Culture Techniques	3
BT 410	Biotechnology Seminar	1
CH 410	Biochemistry	4
BI 401	Independent Study: Research Project	3
LASC	Distribution Elective	3
	Semester Subtotal	**14**

Summer

1. Biological, Chemistry or Graduate Elective (3)
2. Graduate Elective (3)
3. Statistics requirement for graduate program (3)

YEAR FIVE

Semester One		
Course No.	**Course Name**	**Credits**
BI 995	Research Project	3
BI	Graduate Elective	3
BI	Graduate Elective	3
	Semester Subtotal	**9**

Semester Two		
Course No.	**Course Name**	**Credits**
BI 995	Research Project	3
BI	Graduate Elective	3
BI 990	Seminar in Biotechnology	3
	Semester Subtotal	**9**

Biotechnology Courses (Undergraduate)

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

BT110 Introduction to Concepts of Biotechnology

LASC—Natural Systems and Processes

The uses of Biotechnology. The scientific, economic, social, ethical, and political impact of Biotechnology.
Offered every 2 years. 3 credits.

BT 210 Introduction to Forensics

LASC—Natural Systems and Processes

Prerequisite: Complete one quantitative reasoning course

Survey of forensic case studies and the laboratory techniques used to solve crimes including microscopy, chromatography, entomology, botany, ballistics and DNA electrophoresis. Three hours lecture and two hours laboratory per week.
Offered every 3 years. 4 credits.

BT 375 Tissue Culture

Prerequisite: CH 120, CH 121

A review of the methods of animal and plant tissue culture. Media preparation, aseptic techniques and cell culture technology. Three lecture hours and three laboratory hours per week.
Offered every year. 4 credits.

BT 376 Biotechnology

Prerequisite: CH 120, CH 121, BI 141

Principles and applications of recombinant DNA (molecular & microbial aspects). The Biotechnology Industry including bioreactor manufacturing standards and government rules. Three lecture hours and three laboratory hours per week.
Offered every year. 4 credits.

BT 377 Fermentation Technology

Prerequisites: BI 141, BI 204

Explores the application of biological and engineering principles involved in manufacturing pharmaceutical products. Three hours lecture and three hours laboratory per week.
Offered every 2 years. 4 credits.

BT 378 Bioinformatics

Prerequisites: BI 203, BI 141

Provides an overview of Bioinformatics including database structure, genomics, computational biology and proteomics. Three hours lecture and three hours laboratory per week.
Offered every 2 years. 4 credits.

BT 410 Biotechnology Seminar

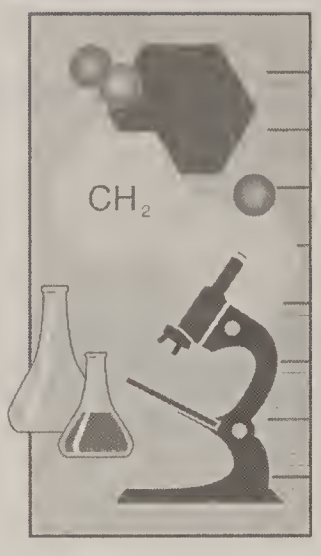
Prerequisites: Senior standing and consent of department

Up-to-date developments in Biotechnology; preparation and presentation of technical literature. Students will study new techniques and procedures used by the industry.
Offered every year. 1 credit.

BT 450 Internship in Biotechnology

Prerequisite: Consent of department

Qualified upper-level biotechnology majors can learn experimental techniques by working in a research laboratory or a professional manufacturing environment.
Offered every year. 3-6 credits.



Chemistry
Department of Chemistry

Faculty

Jeremy R. Andreatta, Assistant Professor (2012)
B.S., Tarleton State University; Ph.D., Texas A&M University

Meghna Dilip, Associate Professor (2008)
B.Sc., University of Madros, India; M.Sc., Anna University, India;
M.S., Ph.D., The University of Alabama

Anne M. Falke, Professor (1997)
B.A., University of Rhode Island; Ph.D., University of New Hampshire

Eihab Jaber, Associate Professor (2006)
B.A., Hunter College of New York City; M.S, Ph.D., State University of New York, Stony Brook

Margaret E. Kerr, Professor (2000), Department Chair
B.S., University of Maine; Ph.D., Wesleyan University

Susan Mitroka, Assistant Professor (2013)
B.A., Rutger's University; Ph.D., Virginia Polytechnic Institute and State University

Kathleen Murphy, Assistant Professor (2014)
B.S., College of William and Mary, M.S., Ph.D., University of Massachusetts Amherst

Jeffry C. Nichols, Associate Professor (2006)
B.A., Texas Tech University; Ph.D., Rice University

Joseph G. Quattrucci, Assistant Professor (2011)
B.A., University of Southern Maine; Ph.D., University of Massachusetts, Amherst

The chemistry program provides education and training in chemistry to students who wish to pursue careers in chemistry, biotechnology, medicine, dentistry, allied health fields, science teaching, environmental science, materials science and engineering. Chemistry is considered the central science because it is required for full understanding of many other sciences as well as medicine. The Chemistry Department offers courses for general education as well as for majors in chemistry, biology, biotechnology, and nursing. Besides the chemistry major and minor programs, the department also offers concentrations in nuclear medicine technology, biochemistry, green chemistry and environmental chemistry, materials science and inorganic chemistry, and bioinformatics. Majors in chemistry may also be eligible for the Accelerated Pharmacy Program with the Massachusetts College of Pharmacy and Health Sciences. The department has a chapter of the Gamma Sigma Epsilon National Honor Society in chemistry. The department offers opportunities for undergraduate research in organic chemistry, bioanalytical chemistry, nanoscience and molecular modeling. The Chemistry Department promotes green chemistry in its curriculum and research.

Requirements for a Major in Chemistry: 45 credits

Core: 33 credits

CH 120 & CH 121	General Chemistry I and II
CH 201 & CH 202	Organic Chemistry I and II (Lectures)
CH 203 & CH 204	Organic Chemistry Laboratory I and II
CH 301 & CH 302	Physical Chemistry I and II (Lectures)
CH 303	Physical Chemistry Laboratory I
CH 210	Chemical Analysis: An Introduction to Modern Methods
CH 475	Chemistry Seminar

Plus a minimum of 12 credits at the 300 level or above, at least one of which must be a lab course. Internships and Independent Study may contribute no more than 3 credits toward this requirement.

In addition, majors are expected to complete the following ancillary courses: MA 200 & MA 201 Calculus I and II, or PY 241 & PY 242 Physics I and II.

Department of Chemistry Sample Timeline for Completion of Degree

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
LASC	First-Year Seminar	3
EN 101	English Composition I	3
CH 120	General Chemistry I	4
MA 200	Calculus I (LASC QR) or Math according to accuplacer score	4
LASC	Distribution Elective	3
	Semester Subtotal	**17**

Semester Two		
Course No.	**Course Name**	**Credits**
EN 102	English Composition II	3
LASC	U.S. Constitution	3
CH 121	General Chemistry II	4
MA 201	Calculus II (LASC QR) or Math according to accuplacer sore	4
LASC	Distribution Elective	3
	Semester Subtotal	**17**
Comments	It is recommended that students take Calculus (MA 200/1) in their first year and calculus-based physics (PY241/2) in their second year. This gives the best preparation for physical chemistry in the third year. EN 101 satisfies LASC writing MA 200/1 satisfies QR.	

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
CH 201	Organic Chemistry I (Lectures)	3
CH 203	Organic Chemistry Laboratory I	2
PY 241	Physics I (LASC NSP)	4
CH 210	Chemical Analysis (LASC WAC) or Calculus I (if not taken previously)	4
LASC	Distribution Elective	3
	Semester Subtotal	**16**

Semester Four		
Course No.	**Course Name**	**Credits**
CH 202	Organic Chemistry II (Lectures)	3
CH 204	Organic Chemistry Laboratory II	2
PY 241	Physics II (LASC NSP)	4
CH3XX/4XX	Chemistry Upper-level Elective or Calculus II (if not taken previously)	3-4
LASC	Distribution Elective	3
	Semester Subtotal	**15-16**
Comments	* PY 241/2 each satisifes NSP. CH 210 satisfies WAC.	

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
CH 301	Physical Chemistry I (Lectures)	4
CH 303	Physical Chemistry Laboratory I	2
LASC	Distribution Elective**	3
LASC	Distribution Elective or Chemical Analysis (if not taken previously)	3
LASC	Distribution Elective	3
	Semester Subtotal	**15**

Semester Six		
Course No.	**Course Name**	**Credits**
CH 302	Physical Chemistry II (Lectures)	3
CH3XX/4XX	Chemistry Upper Level Elective	3-4
LASC	Distribution Elective	3
LASC	Distribution Elective	3
LASC	Distribution Elective	
	Semester Subtotal	**15-16**
Comments	** 3 + 3 Pre-Pharmacy students must take Chemistry Seminar in the Fall semester of Junior year others take in Senior year.	

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
CH 475*	Chemistry Seminar**	2
CH3XX/4XXX	Chemistry Upper Level Elective	3-4
LASC	Distribution Elective	3
LASC	Distribution Elective	3
LASC	Distribution Elective	3
	Semester Subtotal	**14-15**

Semester Eight		
Course No.	**Course Name**	**Credits**
CH3/4 XXX	Chemistry Upper Level Elective	3-4
SELECT	Free Elective (Chemistry or other)	3-4
SELECT	Free Elective (Chemistry or other)	3-4
LASC	Distribution Elective	3
	Semester Subtotal	**12-15**
Comments	** Students who have not taken Chemistry Seminar (a Capstone Experience) must take it in their senior year Fall semester.	

TOTAL CREDITS= 121-127

Note: The sequence of LASC courses marked with *** is a suggestion but serves as a reminder that LASC designated courses must be taken to satisfy the LASC requirements.

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

Requirements for a Major in Chemistry, Concentration in Nuclear Medicine Technology: See program description under Biology.

Requirements for a Major in Chemistry, Concentration in Biochemistry:

All of the courses listed above as required for the major in chemistry plus both
CH 410 Biochemistry I and CH 350 Medicinal Chemistry

and any two of the following:

CH 330	Environmental Toxicology
CH 355	Molecular Pharmacology
CH 411	Biochemistry II
BI 375	Molecular Biology
CH 495	Fundamentals of Chemical Research (in appropriate topic for concentration)

Three credits of CH 480 (Chemistry Internship) or CH 490 (Independent Study) in an appropriate topic for the concentration may be substituted for one of the electives with departmental approval.

Requirements for a Major in Chemistry, Concentration in Green Chemistry and Environmental Chemistry:

All of the courses listed above as required for the major in chemistry plus both
CH 320 Environmental Chemistry and CH 335 Green Chemistry

and any two of the following:

CH 330	Environmental Toxicology
CH 336	Environmental and Chemistry Lab
CH 410	Biochemistry I
CH 470	Instrumental Analysis
CH 495	Fundamentals of Chemical Research (in appropriate topic for concentration)

Three credits of CH 480 (Chemistry Internship) or CH 490 (Independent Study) in an appropriate topic for the concentration may be substituted for one of the electives with departmental approval.

Requirements for a Major in Chemistry, Concentration in Materials Science and Inorganic Chemistry:

All of the courses listed above as required for the major in chemistry plus both
CH 340 Advanced Inorganic Chemistry and CH 360 Introduction to Materials Science

and any two of the following:

CH 304	Physical Chemistry Laboratory II
PY 310	Modern Physics
CH 470	Instrumental Analysis
CH 495	Fundamentals of Chemical Research (in appropriate topic for concentration)

Three credits of CH 480 (Chemistry Internship) or CH 490 (Independent Study) in an appropriate topic for the concentration may be substituted for one of the electives with departmental approval.

Requirements for a Major in Chemistry and to meet the prerequisites for the Accelerated Pharmacy Program with Massachusetts College of Pharmacy and Health Sciences:

(Please see program description in this catalog.)

All of the courses listed for the chemistry major core, plus:

BI 140	Introduction to Organismal Biology
BI 141	Introduction to Cellular and Molecular Biology
PY 241	Physics I
MA 200	Calculus
MA 201	Calculus II
BI 204	Microbiology
PY 242	Physics II

Requirements for a Major in Chemistry, Concentration in Bioinformatics:

The purpose of this interdisciplinary concentration is to prepare students to enter computer-intensive fields of bioinformatics, computational biology, computational chemistry and molecular modeling including genomics and proteomics. With the advent of the Human Genome Project, an explosion of genomics information has occurred, and databases such as GenBank and EMBL have grown at a rate that now requires storage, organizing and indexing of the information. Questions of gene expression have led to computational biology, the process of analyzing genomic sequences and to the field of proteomics, the understanding of protein structure and function. The information obtained by computational biology and computational chemistry is used in the design of new drugs to treat a variety of diseases. Major drug and biotechnology companies are seeking people trained in bioinformatics.

In addition to the requirements for the Major in Chemistry:

BI 201	Cell Biology or BI 203 Genetics+	4
BT 378	Bioinformatics	4
CS 140	Introduction to Programming	4
CS 242	Data Structures	3
CS 135	Programming for Non-CS Majors	3
CS 265	Database Applications	3

One course from:

BI 201	Cell Biology	4
BI 203	Genetics+	4
BI 204	Microbiology	4
BI 306	Developmental Biology+	4
BI 353	Tree of Life: Evolutionary Systematics	4
BI 371	Molecular Biology+	4
BI 375	Virology+	4
BT 376	Biotechnology	4

+requires additional prerequisite courses beyond those required for the major and concentration.

Chemistry Honors Program:

The Chemistry Honors Program is an upper-level program designed to challenge students majoring in chemistry to excel in their course work, to encourage them to extend their program beyond the basic requirements of the major, and to reward and recognize them for so doing. Students are required to have a 3.5 GPA in chemistry and ancillary courses and a 3.2 GPA overall.

Students would need to complete the following courses in chemistry:

CH 120 & CH 121	General Chemistry I and II
CH 201 & CH 202	Organic Chemistry I and II (Lectures)
CH 203 & CH 204	Organic Chemistry Laboratory I and II

CH 210	Chemical Analysis: An Introduction to Modern Methods
CH 301 & CH 302	Physical Chemistry I and II (Lectures)
CH 303	Physical Chemistry Laboratory I
CH 475	Chemistry Seminar

The following two courses must be taken as part of the required 12 credits of 300 and 400-level electives:

CH 340	Advanced Inorganic Chemistry
CH 410	Biochemistry I

Students would need to complete at least 6 semester hours of research under CH 490 (Independent Study) leading to the writing of a thesis.

In addition, students would be expected to complete the ancillary requirements for the chemistry major in calculus and physics.

Requirements for a Minor in Chemistry: 18 credits

CH 120 & CH 121	General Chemistry I and II
Ten (10) additional credits in 200- or higher level chemistry courses	

Chemistry Courses (Undergraduate)

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

CH 106 Paper or Plastics?

LASC—Natural Systems and Processes

Students will study modern issues related to chemistry. These will include sustainability, green chemistry, climate change and the ozone layer.
Offered every year. 3 credits.

CH 110 Introduction to General, Organic, and Biochemistry I

LASC—Natural Systems and Processes (Laboratory Course)

An introductory survey of chemistry. Topics include atomic structure, chemical bonding and reactions, acid-base theory, introduction to organic chemistry. Three lecture hours and three laboratory hours per week.
Offered every year. 4 credits.

CH 112 Survey of Chemistry

LASC—Natural Systems and Processes (Laboratory Course)

Chemical and physical properties of inorganic, organic and biochemical compounds with implications for human health and the environment. Ancillary course—Nursing Program. Four lecture hours and two laboratory hours per week.
Offered every semester. 5 credits

CH 120 General Chemistry I

LASC—QR, Accuplacer score of 3 required

Modern survey of chemistry. Topics include chemical equations, properties of gases, atomic structure, periodic table, chemical bonding, chemistry of carbon. Three lecture hours and three laboratory hours per week. CH 120 and 121 provide the foundation for further courses in chemistry.
Offered every year. 4 credits.

CH 121 General Chemistry II

Prerequisite: CH 120

Continuation of CH 120. Topics include principles of thermodynamics, acids and bases, reaction rates, oxidation-reduction reactions, and electrochemistry. Three lecture hours and three laboratory hours per week.
Offered every year. 4 credits.

CH 191 Selected Topics

A lecture or laboratory course designed to introduce a selected topic(s) of interest.
Offered every 3 years. 1-4 credits.

CH 193 Special Topics in Chemistry for First-Year Students

All "193" courses are approved for LASC but may vary by section. See current course listing for specific LASC area approval.

Introductory level course covering topics of special interest to first-year students. Offered only as a First-Year Seminar.
Offered every year. 3 credits.

CH 201 Organic Chemistry I (Lectures Only)

Prerequisites: CH 120, CH 121

Structure, reactions, mechanisms, and stereochemistry of the alkanes, alkenes, alkynes, dienes, alkyl halides. Introduction to aromatic chemistry.
Offered every year. 3 credits.

CH 202 Organic Chemistry II (Lectures Only)

Prerequisite: CH 201

Continuation of CH 201. Reactions and mechanisms of aromatic chemistry; structures and reactions of alcohols, ethers, carboxylic acids, aldehydes, ketones.
Offered every year. 3 credits.

CH 203 Organic Chemistry Laboratory I

Prerequisite or Corequisite: CH 201

Techniques of preparation, purification, and identification of aliphatic compounds. One four-hour laboratory per week.
Offered every year. 2 credits.

CH 204 Organic Chemistry Laboratory II

Prerequisite: CH 203, Prerequisite or Corequisite: CH 202

Application of basic and more advanced techniques to increasingly complicated synthetic problems. One four-hour laboratory per week.
Offered every year. 2 credits.

CH 210 Chemical Analysis: An Introduction to Modern Methods

LASC - Writing Across the Curriculum

Prerequisites: CH 120, CH 121, EN 102

Introduction to modern methods of chemical analysis including gravimetry, acid-base and redox titrations, potentiometry, uv-visible and atomic absorption spectrophotometry, and gas and HPLC chromatography. Two lecture hours and six laboratory hours per week.
Offered every year. 4 credits.

CH 301 Physical Chemistry I (Lectures Only)

Prerequisites: CH 120, CH 121, MA 200, MA 201, PY 241, 242

Study of quantum theory, chemical bonding, spectroscopy, molecular structure and molecular modeling. Three lecture hours and one hour recitation per week.
Offered every year. 4 credits.

CH 302 Physical Chemistry II (Lectures Only)

Prerequisite: CH 301

Continuation of CH 301. Study of first, second and third laws of thermodynamics, and of kinetics, chemical solution and phase equilibria. Three lecture hours per week.
Offered every year. 3 credits.

CH 303 Physical Chemistry Laboratory I

Prerequisite or Corequisite: CH 301

Laboratory deals with methods of physical measurement of chemical systems and their application to the determination of molecular structure, spectroscopy and thermodynamic data. One four hour laboratory per week.
Offered every year. 2 credits.

CH 304 Physical Chemistry Laboratory II

Prerequisite or Corequisite: CH 302

Continuation of CH 303; project-oriented laboratory dealing with the study of reaction rates and mechanisms, electrochemistry, and molecular properties. One four hour laboratory per week.
Offered every 2 years. 2 credits.

CH 320 Environmental Chemistry

Prerequisites: CH 120, CH 121 or CH 201

Chemistry of the atmosphere, soil, and natural water systems, air and water pollution water treatment, hazardous wastes and pollution control.
Offered every 2 years. 3 credits.

CH 330 Environmental Toxicology

Prerequisites: CH 120, CH 121, BI 101

Topics include the pharmacological and biochemical properties of toxins and the effects of toxins on human health, including assessment of risk(s).
Offered every 3 years. 3 credits.

CH 335 Green Chemistry

Prequisites: CH 120, 121

This course will provide an understanding of the fundamentals of green chemical design that either eliminates or reduces the use or generation of hazardous substances. Three hours of lecture/lab per week.
Offered every year. 3 credits.

CH 336 Environmental and Green Chemistry Laboratory

Prerequisites: CH 120/121 CH 320 or CH 335 (recommended)

Laboratory experiments will demonstrate principles of green chemistry and include topics in environmental sampling, analysis and toxicology. Four hour laboratory per week.
Offered every year. 2 credits.

CH 340 Advanced Inorganic Chemistry

Prerequisites: CH 120, CH 121, CH 201 or CH 202 recommended, CH 301

This course is a survey of the chemistry of the inorganic elements, focusing on the relationship between electronic structure , physical properties, and reactivity across the periodic table.
Offered every 2 years. 3 credits.

CH 350 Medicinal Chemistry

Prerequisites: CH 201, CH 202

A study of how drugs work and the science and technology of modern drug discovery illustrated with case histories. Three lecture hours per week.
Offered every 3 years. 3 credits.

CH 355 Molecular Pharmacology

Prerequisites: CH 201, CH 202, BI 140 and Prerequisite or Co-requisite CH 410

Course examines the interdisciplinary science of pharmacology from a chemical perspective. Topics include pharmacotherapeutics, pharmacokinetics, pharmacodynamics, pharmacognosy, pharmacy and toxicology. Three lecture hours per week.
Offered every two years. 3 credits.

CH/PY 360 Introduction to Materials Science

Prerequisites: CH 120, CH 121, and either PY 221, PY 222 or PY 241, PY 242

Physical structure of solids. Electrical, magnetic, thermal, and optical properties of solids, liquids, and soft matter. Structure-property relationships in materials.
Offered every year. 3 credits.

CH/PY 370 Introduction to Nuclear Science

Prerequisites: CH 120, CH 121, MA 200 Calculus I, and either PY 221, PY 222 or PY 241, PY 242

Fundamentals of nuclear science. Topics include nuclear structure and forces, radioactive decays, nuclear reactions, and modern applications.
Offered every 2 years. 3 credits.

CH/BI 410 Biochemistry I

Prerequisites: CH 201, Prerequisite or Corequisite: CH 202

The chemistry of proteins, nucleic acids, carbohydrates, and lipids; enzymes, biological oxidations; and correlations in intermediary metabolism. Three lecture hours and three laboratory hours per week.
Offered every year. 4 credits.

CH/BI 411 Biochemistry II

Prerequisite: CH/BI 410

The generation and storage of metabolic energy; biosynthesis of macromolecular precursors, DNA, RNA, and protein; and biochemical regulation. Three lecture hours per week.
Offered every 3 years. 3 credits.

CH 415 Nucleic Acids Biochemistry

Prerequisites: CH 201, CH 202; CH 410 recommended

Structure and function of nucleic acids in prokaryotes and eukaryotes. Topics include nucleotide metabolism, replication, repair, and recombinant DNA techniques.
Offered every 3 years. 3 credits.

CH 425 Bioanalytical Chemistry

Prerequisites CH 201, CH 202 and CH 203

Separation, identification and analysis of biological compounds using modern biochemical methods. Two lecture hours and six laboratory hours per week.
Offered every 3 years. 4 credits.

CH 450 Computational Chemistry

Prerequisites: CH 301

Modern theoretical methods used in studying molecular structure, bonding, and reactivity. Application of these theories to various chemical systems.
Offered every 2 years. 3 credits.

CH/BI 453 Radiopharmaceuticals

Prerequisite: Consent of NMT coordinator

Fundamental concepts of radiopharmaceutical production including basic radiochemistry.
Offered every year. 4 credits.

CH 455 Special Topics in Chemistry

Prerequisites: 18 credits in Chemistry and consent of Department

Exploration of frontier areas of chemistry, including chemical kinetics, quantum chemistry, polymers, spectroscopy, materials science, environmental, bioinorganic and medicinal chemistry.
Offered every 3 years. 3-4 credits.

CH/BI 465 Clinical Nuclear Medicine Technology I

Prerequisite: Consent of NMT coordinator

Why a specific test is indicated; which radiopharmaceutical is preferred; and how the basic image appearance and/or numerical data may be altered by pathological states.
Offered every year. 4 credits.

CH/BI 466 Clinical Nuclear Medicine Technology II

Prerequisite: Consent of NMT coordinator

Case presentations using formulas, charts, tables, and calculations to arrive at examination parameters such as amount of dose, number of counts, speed of instrument, etc.
Offered every year. 4 credits.

CH 470 Instrumental Analysis

Prerequisites: CH 120, CH 121, together with CH 210 or CH 301 or two years of analytical laboratory experience

Advanced level survey of instrumental methods of separation and analysis including spectrophotometry, potentiometry, polarography, and chromatography. Laboratories are project-oriented. Two lecture hours and six laboratory hours per week.
Offered every 2 years. 4 credits.

CH 475 Chemistry Seminar

LASC - Major Capstone

Prerequisite: Successful completion of 25 Chemistry credits or special permission of instructor

Contemporary developments in chemistry, review of technical literature in both print and electronic format, preparation and presentation of technical paper.
Offered every year. 2 credits.

CH 480 Chemistry Internship

Prerequisite: Consent of department

Project completed at an institution other than Worcester State by a student with a non-Worcester State sponsor and Worcester State liaison.
Offered every year. 1-6 credits.

CH 485 Directed Study in Chemistry

Prerequisites: 18 credits in Chemistry and Consent of Department

Designed for the undergraduate who wishes to undertake individualized study in chemistry on topic mutually agreeable to student and instructor.
Offered every year. 3-4 credits.

CH 490 Independent Study in Chemistry

Prerequisite: Consent of department

Advanced independent work on a research problem in chemistry mutually agreed to by the student and the instructor.
Offered every year. 1-6 credits.

CH 495 Fundamentals of Chemical Research

Prerequisite: Consent of instructor required

Students will conduct research on an assigned project with individual guidance and supervision from the instructor. One lecture hour and four laboratory hours per week.
Offered every semester. 3 credits.

Communication Sciences and Disorders

Department of Communication Sciences and Disorders

Faculty

Sharon M. Antonucci, Assistant Professor (2012)
B.A., Connecticut College; M.S. Teacher's College, Columbia University; Ph.D., University of Arizona

Joan E. Butterworth, Clinical Instructor (2008)
B.S., Northeastern University; M.S., Purdue University

Keith N. Darrow, Associate Professor (2010), Department Chair
B.S., University of Massachusetts; M.S., Brooklyn College; Ph.D., Massachusetts Institute of Technology and Harvard Medical School

Kara F. Medeiros, Assistant Professor (2013)
B.S., Elmhurst College; M.S., Texas A&M, Kingsville; Ph.D., University of Nebraska-Lincoln

Kenneth S. Melnick, Associate Professor (2004)
B.A., University of Michigan; M.A., University of Cincinnati; Ph.D., Vanderbilt University

Susanna E. Meyer, Professor (1997)
B.A., M.S., Ph.D., University of Pretoria, South Africa

Roger L. Towne, Associate Professor (2004)
B.A., M.A., University of Montana; Ph.D., Southern Illinois University (Carbondale)

Ann T. Veneziano-Korzec, WSU Speech-Language-Hearing Center Director (1988)
B.S., Boston College; M.S., Syracuse University

The goal of the Department of Communication Sciences and Disorders is to facilitate an understanding of normal human communication processes as well as disorders in communication that can develop or be acquired. Communication is defined as the sharing of needs, experiences, ideas, thoughts, and feelings with other people through such modalities as talking, listening, writing, reading, and nonverbal means. Undergraduate students in Communication Sciences and Disorders begin by learning the scientific foundations of the normal processes of communication. This scientific basis is followed by an introduction to the disorders that can occur in speech, language, and/or hearing in children and adults.

The undergraduate program in Communication Sciences and Disorders immerses students in an academically rigorous and challenging course of study. In addition to the courses offered within the department, students are required to take courses in biological sciences, physical sciences, behavioral sciences, and mathematics. A CSD baccalaureate degree can provide students with a strong preparation for graduate study in many fields including Speech-Language Pathology and Audiology.

Overall, the major provides students with a range of abilities that can enable them to do well in either graduate school or in the workplace. These skills include interpersonal, critical thinking, problem-solving, scientific reasoning, writing, and presentation abilities.

Requirements for a Major: 46 credits

CD 100	Introduction to Human Communication and its Disorders
CD 103	Language Science
CD 110	Anatomy and Physiology of Speech and Hearing
CD 115	Normal Development of Speech and Language
CD 201	Hearing Science
CD 202	Speech Science
CD 205	Phonetics
CD 230	Neuroscience for Communication Sciences and Disorders
CD 301	Directed Observations
CD 305	Introduction to Audiology
CD 310	Language Disorders
CD 320	Speech Disorders
CD 400	Introduction to Aural Rehabilitation
CD 401	Advanced Directed Observations
CD 410	Professional Guidelines and Skills
CD 475	Selected Topics in Communication Sciences and Disorders

The minimum grade students may be allowed to obtain in any prerequisite course before being allowed to take the subsequent courses in the CSD major is a C. In addition, the maximum number of times students may take a course in the CSD major is twice (i.e., one repetition).

Students will be screened for adequate speech and language patterns and recommendations made for therapy when appropriate.

Out of department requirements include the following courses: one biological science (human or animal based), one physical science (physics, natural science, or chemistry based), one math (MA 180 - Introduction to Functions, or higher), one statistics, and two behavioral sciences of which one must be in developmental psychology. These requirements cannot be taken pass/fail. Advisors in the department of Communication Sciences and Disorders will help students choose appropriate courses in these areas.

Department of Communication Sciences and Disorders
Sample Timeline for Completion of Degree

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
LASC	First-Year Seminar	3
EN 101	English Composition I	3
CD 100	Introduction to Human Communication and Its Disorders	3
PS 101	General Psychology (LASC HBS)	3
MA 180	Introduction to Functions	3
	Semester Subtotal	**15**

Semester Two		
Course No.	**Course Name**	**Credits**
EN 102	English Composition II	3
CD 103	Language Science	3
CD 110	Anatomy and Physiology of Speech and Hearing	3
STATISTICS	MA 150 or PS 275 (LASC QR)	3
LASC	Distribution Elective (USW)	3
	Semester Subtotal	**15**
Comments	MA 180 requires an Accuplacer score of 5 or higher. MA 150 requires and Accuplacer score of 4 or higher. EN 101 and 102 satisfy LASC Writing.	

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
CD 201	Hearing Science (QLAC)	3
CD 205	Phonetics	3
BIO, SCI*	BI 101 (LASC NSP), BI 141, BI 161	4
LASC	Distributed Elective (GP**)	3
LASC	Distribution Elective (CA**)	3
	Semester Subtotal	**16**

Semester Four		
Course No.	**Course Name**	**Credits**
CD 115	Normal Development of Speech and Language	3
CD 230	Neuroscience for Communication Sciences and Disorders	3
PS 210	Developmental Psychology	3
Phys. Sci.*	PY 105, 114,221 or 224; NS 120, CH 110 (LASC)	4
LASC	Distribution Elective (TLC**)	3
	Semester Subtotal	**16**
Comments	CD 201 requires an Accuplacer score of 3 or higher. BI 101 satisfies LASC NSP. * See advisor for a full list of approved courses.	

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
CD 202	Speech Science	3
LASC	Distribution Elective (HBS**)	3
LASC	Distribution Elective (ICW**)	3
LASC	Distribution Elective (DAC**)	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments	CD 202 requires an Accuplacer score of 3 or higher.	

Semester Six		
Course No.	**Course Name**	**Credits**
CD 301	Directed Observation	2
CD 310	Language Disorders	3
CD 320	Speech Disorders	3
CD 305	Introduction to Audiology	3
LASC	Distribution Elective (Constitutions)	3
SELECT	General Elective	3
	Semester Subtotal	**17**
Comments	CD 301, 305, 310 and 320 are corequisite courses.	

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
CD 400	Introduction to Aural Rehabilitation Theory (DAC)	3
CD 401	Advanced Directed Observations	2
CD 410	Professional Guidelines and Skills (CAP)	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**14**

Semester Eight		
Course No.	**Course Name**	**Credits**
CD 475	Special Topics in Communication Sciences and Disorders	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments	CD 301with CD 401 satisfy LASC WAC.	

TOTAL CREDITS= 123

Note: Most CD courses have prerequisites that must be completed before entering the subsequent course. The sequence of LASC courses marked with ** are suggestions and serve as a reminder that LASC Distribution Electives must be taken to satisfy the LASC requirements.

The second semester of year two or first semester of year three are the best choices for students who are interested in study abroad or National Student Exchange (NSE). Students should plan their semester abroad with their department advisor at least one year in advance to assure that they can complete CSD requirements in a timely manner.

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

CSD Honors Program

The CSD Honors Program is intended for outstanding students within the CSD major. Students completing the requirements will graduate with departmental honors. Applicants must submit a letter of application to the CSD Undergraduate Committee, a research proposal, and a letter of support from a faculty sponsor. Applications are due November 1st for Spring semester and April 1st for Fall semester.

To be part of the program, CSD students must have:
- A minimum GPA of 3.5
- No grade less that a B in all CSD courses and non-CSD required courses
- Completed a total of 60 credits
- Completed CD 110, 115, 201, 202, 205, and 230

Once accepted into the CSD Honors Program, students will:
- Complete a research project in collaboration with a CSD faculty mentor
- Defend the project before the CSD undergraduate committee
- Present the project in at least one venue

Requirements for a Minor: 18 credits within the department; 15 credits must include:

CD 100	Introduction to Human Communication and its Disorders
CD 103	Language Science
CD 110	Anatomy and Physiology of Speech and Hearing
CD 115	Normal Development of Speech and Language
CD 205	Phonetics

For students taking prerequisites for the Speech-Language Pathology graduate program, two additional courses, CD 201 Hearing Science and CD 202 Speech Science, must be completed.

Communication Sciences and Disorders Courses (Undergraduate)

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

CD 100 Introduction to Human Communication and its Disorders

LASC—Human Behavior and Social Processes; Individual and Community Well-Being

Nature and causes of organic and functional speech, language and hearing problems, general awareness of diagnostic and therapeutic techniques.
Offered every year. 3 credits.

CD 103 Language Science

LASC—Thought, Language, and Culture

Introduction to basic linguistic knowledge including theoretical areas of pragmatics, semantics, syntax, morphology and phonology in a multicultural perspective.
Offered every year. 3 credits.

CD 110 Anatomy and Physiology of Speech and Hearing

LASC—Natural Systems and Processes, Thought, Language, and Culture

Normal anatomy and physiology of the speech and hearing mechanism with emphasis on respiration, phonation, articulation, audition, and neurology.
Offered every year. 3 credits.

CD 115 Normal Development of Speech and Language

An in-depth coverage of the normal acquisition and development of speech and language, including phonology, morphology, syntax, semantics and pragmatics.
Offered every year. 3 credits.

CD 120 Introduction to Sign Language

Sign language systems and fingerspelling with emphasis on American Sign Language vocabulary and word order.
Offered every year. 3 credits.

CD 193 Special Topics in Communication Sciences and Disorders for First-Year Students

All "193" courses are approved for LASC but may vary by section. See current course listing for specific LASC area approval.

Introductory level course covering topics of special interest to first-year students. Offered only as a First-Year Seminar.
Offered every year. 3 credits.

CD 201 Hearing Science

LASC—Quantitative Literacy Across the Curriculum

Prerequisite: CD 110, Accuplacer Code≥ 3

Basic concepts needed to study audiology and aural rehabilitation: physical acoustics, physiological acoustics, and psycho-acoustics.
Offered every year. 3 credits.

CD 202 Speech Science

Prerequisites: CD 110, CD 205, Accuplacer Code≥ 3

An exploration of psycho-acoustic aspects of speech with an emphasis on laboratory analysis, including spectrography.
Offered every year. 3 credits.

CD 205 Phonetics

The study of English speech sounds, their articulation and acoustic characteristics, and speech transcription using the International Phonetic Alphabet.
Offered every year. 3 credits.

CD 230 Neuroscience for Communication Sciences and Disorders

LASC—Natural Systems and Processes

Structure and function of the nervous system and its relation to normal and disordered speech, language, and hearing.
Offered every year. 3 credits.

CD 301 Directed Observations

LASC—Writing Across the Curriculum (on successful completion of CD 401)

Corerequisite: CD 310, 320 and 305

Beginning aspects of clinical issues including objectives, rapport, and timing. Therapy/diagnostic sessions will be viewed and highlighted by instructor.
Offered every year. 2 credits.

CD 305 Introduction to Audiology

Prerequisite: CD 201

Introduction to audiometric testing techniques and interpretation as related to ear pathologies.
Offered every year. 3 credits.

CD 307 Intermediate Sign Language

Prerequisite: CD 120

Students gain more facility in sign usage. Receptive and expressive vocabularies are expanded and fluency increased.
Offered every year. 3 credits.

CD 310 Language Disorders

Prerequisites: CD 100, CD 103, CD 110, CD 115, CD 202, CD 205, CD 230

Examination of the processes interfering with normal language acquisition and the disorders which disturb established language skills in children and adults.
Offered every year. 3 credits.

CD 320 Speech Disorders

Prerequisites: CD 100, CD 110, CD 115, CD 201, CD 202, CD 205, CD 230

Study of the theoretical bases of articulation, voice and fluency disorders. Etiology, characteristics, evaluation and rehabilitation of these disorders.
Offered every year. 3 credits.

CD 400 Introduction to Aural Rehabilitation

LASC—Diversity Across the Curriculum

Prerequisites: CD 201, CD 202, CD 305, CD 310, CD 320

Study of the theoretical basis of the characteristics, evaluation and treatment of individuals with hearing impairment across the life span.
Offered every year. 3 credits.

CD 401 Advanced Directed Observations

LASC—Writing Across the Curriculum (on successful completion of CD 301)

Prerequisites: CD 301, EN 102

Advanced aspects of clinical issues including procedures and material selection. Therapy/diagnostic sessions will be viewed and highlighted by the instructor.
Offered every year. 2 credits.

CD 410 Professional Guidelines and Skills

LASC— Writing Across the Curriculum

Prerequisites: CD 305, CD 310, CD 320, EN 102

Presentation of professional issues; observation and practice in evaluation and treatment of speech-language disorders.
Offered every year. 3 credits.

CD 475 Selected Topics in Communication Sciences and Disorders

Prerequisites: CD 310, CD 320

Selection of topics of mutual interest to the student and faculty. Timely topics and issues will be covered.
Offered every year. 1-3 credits.

CD 490 Independent Study in Communication Sciences and Disorders

Prerequisite: Junior and senior majors only

In-depth study, research, or field experience in an area of interest in speech-language pathology or audiology under faculty supervision.
Offered every year. 1-3 credits.

Computer Science
Department of Computer Science

Faculty

Elena Braynova, Professor (2003), Department Chair
M.S., State University of New York at Buffalo; M.S., Ph.D., Moscow State University, Russia

Aparna Mahadev, Professor (1999)
B.Sc., University of Madras, India; M. Sc., University of Madras, India;
M.S., Indian Institute of Technology, India; Ph.D. University of Waterloo, Canada

Hemant Pendharkar, Professor (2001)
B.S., M.S., University of Bombay, India; M.S., Ph.D., University of New Hampshire

Karl R. Wurst, Professor (1999)
B.S., Central Connecticut State University; M.S., Ph.D., University of Connecticut

The Computer Science program offers an undergraduate education that promotes lifelong intellectual growth and prepares students for professional careers and advanced study. The program is grounded in the principles, theories, and application of the science of computing with a special emphasis in the areas of Big Data Analytics and Software Development.

Students will develop the ability to effectively apply discipline knowledge to solve real-world problems, adapt as the field changes, and make ethical decisions. The curriculum provides the foundations of team skills, and allows students to improve their interpersonal skills and professional attitudes. Students will have an opportunity to participate in an internship and in undergraduate research.

Program Outcomes for the Major in Computer Science

Upon completion of the Computer Science Major students will be able to:

- Analyze a problem, develop/design multiple solutions and evaluate and document the solutions based on the requirements.
- Communicate effectively both in written and oral form.
- Identify professional and ethical considerations, and apply ethical reasoning to technological solutions to problems.
- Demonstrate an understanding of and appreciation for the importance of negotiation, effective work habits, leadership, and good communication with teammates and stakeholders.
- Learn new models, techniques, and technologies as they emerge and appreciate the necessity of such continuing professional development.

It is highly recommended that entering students have four years of high school mathematics including the equivalent of pre-calculus.

Students wishing to apply courses transferred from other institutions to the Computer Science major should meet with the department chair to determine the applicability of the courses before registering for any Computer Science courses at Worcester State University.

Non-traditional students with more than 5 years of Computer Science work experience may be eligible to participate in the Next Step Program. The program offers an opportunity to gain credit in the major for writing a prior learning portfolio. The department chair can assist in determining if the program will serve each student's educational goals.

Requirements for a Major in Computer Science: Students must complete a core of seven Computer Science courses, one of the two Computer Science concentrations, two Computer Science Elective courses, and 39 credits of Ancillary courses.

Core Courses: 24 Credits

CS 101	Basics of Computer Science
CS 140	Introduction to Programming
CS 155	Computer Networking, Security and Databases
CS 242	Data Structures
CS 254	Computer Organization and Architecture
CS 282	UNIX Systems Programming
CS 373	Operating Systems

Elective Courses: 6 Credits in Computer Science courses at the 300 level or above. Up to 3 credits of Internship (CS 498) and up to 3 credits of Independent Study (CS 499) may be used to satisfy the major elective requirements.

Ancillary Requirements: 39 credits (may apply to LASC requirements). These ancillary courses cannot be taken on a pass/fail basis.

CM 110	Public Speaking
EN 252	Technical Writing
UR 230	Technology, Public Policy & Urban Society
MA 150	Statistics I or MA 302 Probability and Statistics*
MA 200	Calculus I
MA 220 & MA 290	Discrete Mathematics I and II

2 lab science courses

2 approved math or science course chosen from a department-approved list of courses. ** (7 credits)

* Students planning a Mathematics minor or a Computer Science/Mathematics double major should take MA 302 Probability and Statistics.

** Students planning a Mathematics minor or a Computer Science/Mathematics double major should take math courses required for the Mathematics minor/major.

Concentration in Big Data Analytics

Data is being generated at high speed, in large volumes, and by a variety of systems around the world. In such a data-driven and information-centric world, the ability to analyze information and make informed decisions is crucial to every field including business, medicine, the sciences, entertainment, and government. This concentration provides students with the skills, techniques, and knowledge needed to pursue a career in this field.

Requirements for the Concentration in Big Data Analytics: 12 credits in addition to the Core, Elective, and Ancillary courses.

CS 353	Information Organization, Management and Retrieval
CS 383	Cloud, Parallel and Distributed Computing
CS 453	Data Mining
CS 483	Big Data Analytics Capstone

Department of Computer Science: Big Data Analytics Concentration
Sample Timeline for Completion of Degree †

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
CS 101	Basics of Computer Science	3
EN 101	English Composition I (WRI)	3
MA 190	Pre-calculus (QR) or Math/Science course from a department approved list of courses	4
LASC	Freshmen Seminar (FYS)	3
LASC	Distribution Elective (CON***)	3
	Semester Subtotal	**16**

Semester Two		
Course No.	**Course Name**	**Credits**
CS 140	Introduction to Programming	4
CM 155	Computer Networking, Security and Databases	3
EN 102	English Composition II (WRII)	3
MA 200	Calculus I (QR)	4
	Semester Subtotal	**14**

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
CS 242	Data Structures (QLAC)	4
EN 252	Technical Writing (WAC)	3
MA 220	Discrete Mathematics I (QR)	4
UR 230	Technology, Public Policy and Urban Society (HBS)	3
	Semester Subtotal	**14**

Semester Four		
Course No.	**Course Name**	**Credits**
CS 254	Computer Organization and Architecture	4
CS 282	UNIX Systems Programming	3
MA 290	Discrete Mathematics II	4
CM 110	Public Speaking (TLC)	3
	Semester Subtotal	**14**

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
CS 373	Operating Systems	3
CS 353	Information Organization, Management and Retrieval	3
MA 150	Statistics I (QR) or MA 302 Probability and Statistics ***	3
LASC	Lab Science* (NSP)	4
LASC	Distribution Elective (USW***)	3
	Semester Subtotal	**16**
Comments	*All Math and Science courses must be selected from a list of department-approved courses. *** Students planning a Mathematics minor or a Computer Science/ Mathematics double major should take MA 302 Probability and Statistics.	

Semester Six		
Course No.	**Course Name**	**Credits**
CS 383	Cloud, Parallel and Distributed Computing	3
CS	300+ Level Elective in Major	3
LASC	Math or Science course*	3-4
LASC	Lab Science* (NSP)	4
LASC	Distribution Elective (DAC***)	3
	Semester Subtotal	**16-17**
Comments	**All Math and Science courses must be selected from a list of department-approved courses.	

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
CS 453	Data Mining	3
CS	300+ Level Elective in Major	3
LASC	Distribution Elective (CA***)	3
LASC	Distribution Elective (GP***)	3
LASC	General Elective	3
	Semester Subtotal	**15**

Semester Eight		
Course No.	**Course Name**	**Credits**
CS 483	Big Data Analytics Capstone (CAP)	3
LASC	Distribution Elective (ICW***)	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**

TOTAL CREDITS= 120

† This four-year plan assumes a Math Placement score of at least 6.

Note: The sequence of LASC courses marked with *** is a suggestion but serves as a reminder that LASC designated courses must be taken to satisfy the LASC requirements

Once LASC requirements are satisfied, students may select general requirements. Please refer to the University Catalog for specific curriculum details regarding major and LASC requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

Concentration in Software Development

Software systems impact all aspects of life, from phones, to cars, to work lives, and beyond. Software developers analyze the software and infrastructure needs of people and organizations and then coordinate the design, implementation, and testing of the solutions. This concentration provides students with the skills, techniques, and knowledge needed to pursue a career in this field.

Requirements for the Concentration in Software Development: 12 credits in addition to the Core, Elective, and Ancillary courses.

CS 343	Software Construction, Design and Architecture
CS 348	Software Process Management
CS 443	Software Quality Assurance and Testing
CS 448	Software Development Capstone

Department of Computer Science: Software Development Concentration
Sample Timeline for Completion of Degree †

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
CS 101	Basics of Computer Science	3
EN 101	English Composition I (WRI)	3
MA 190	Pre-calculus* (QR) or Math/Science Course **	4
LASC	Freshmen Seminar (FYS)	3
LASC	Distribution Elective (CON****)	3
	Semester Subtotal	**16**
Comments	*If the students math placement score requires her/him to take MA 190 Pre-calculus, it should be taken this semester, so that MA 200 Calculus I can be taken in the Spring semester. EN 101 & 102 satisfy LASC writing requirements. **All Math and Science courses must be selected from a list of department-approved courses.	

Semester Two		
Course No.	**Course Name**	**Credits**
CS 140	Introduction to Programming	4
CM 155	Computer Networking, Security and Databases	3
EN 102	English Composition II (WRII)	3
MA 200	Calculus I (QR)	4
	Semester Subtotal	**14**

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
CS 242	Data Structures (QLAC)	4
EN 252	Technical Writing (WAC)	3
MA 220	Discrete Mathematics I (QR)	4
UR 230	Technology, Public Policy and Urban Society (HBS)	3
	Semester Subtotal	**14**

Semester Four		
Course No.	**Course Name**	**Credits**
CS 254	Computer Organization and Architecture	4
CS 282	UNIX Systems Programming	3
MA 290	Discrete Mathematics II	4
CM 110	Public Speaking (TLC)	3
	Semester Subtotal	**14**

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
CS 373	Operating Systems	3
CS 343	Software Construction, Design and Architecture	3
MA 150	Statistics (QR) or MA 302 Probabilty and Statistics***	3
LASC	Lab Science (NSP)	4
LASC	Distribution Elective (USW****)	3
	Semester Subtotal	**16**
Comments	**All Math and Science courses must be selected from a list of department-approved courses. ***Students Planning a Mathematics minor or Computer Science/Mathematics double major should take MA 302 Probability and Statistics.	

Semester Six		
Course No.	**Course Name**	**Credits**
CS 348	Software Process Management	3
CS	300+ Level Elective in Major	3
LASC	Math or Science Course **	3-4
LASC	Lab Science** (NSP)	4
LASC	Distribution Elective (DAC****)	3
	Semester Subtotal	**16-17**
Comments	**All Math and Science courses must be selected from a list of department-approved courses.	

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
CS 443	Software Quality Assurance and Testing	3
CS	300+ Level Elective in Major	3
LASC	Distribution Elective (CA****)	3
LASC	Distribution Elective (GP****)	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Semester Eight		
Course No.	**Course Name**	**Credits**
CS 448	Software Development Capstone (CAP)	3
LASC	Distribution Elective (ICW****)	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**

TOTAL CREDITS= 120

† This four-year plan assumes a Math Placement score of at least 6.

Note: The sequence of LASC courses marked with **** is a suggestion but serves as a reminder that LASC designated courses must be taken to satisfy the LASC requirements

Once LASC requirements are satisfied, students may select general requirements. Please refer to the University Catalog for specific curriculum details regarding major and LASC requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

Major in Computer Science, Concentration in Bioinformatics

The purpose of this interdisciplinary concentration is to prepare Computer Science students to enter science-intensive fields of bioinformatics, computational biology, computational chemistry and molecular modeling including genomics and proteomics. With the advent of the Human Genome Project, an explosion of genomics information has occurred, and databases such as GenBank and EMBL have grown at a rate that now requires storage, organizing and indexing of the information.

Questions of gene expression have led to computational biology, the process of analyzing genomic sequences and to the field of proteomics, the understanding of protein structure and function. The information obtained by computational biology and computational chemistry is used in the design of new drugs to treat a variety of diseases. Major drug and biotechnology companies are seeking people trained in bioinformatics.

In addition to the requirements for the Major in Computer Science:

BI 141	Introduction to Cellular and Molecular Biology	4
BT 378	Bioinformatics	4
CH 120	General Chemistry I*	4
CH 121	General Chemistry II*	4
CS 400	Database Design**	3
MA 201	Calculus II***	4
MA 303	Mathematical Modeling	3

One course from:

BI 203	Genetics+	4
BI 204	Microbiology	4
BI 306	Developmental Biology+	4
BI 353	Tree of Life: Evolutionary Systematics	4
BI 371	Molecular Biology+	4
BI 375	Virology+	4
BI/CH 410	Biochemistry+	4
BT 376	Biotechnology	4

+requires additional prerequisite courses beyond those required for the major and concentration.

*count as the two Lab Science courses required in the CS major Ancillary requirements.

**counts as one of the two CS major Elective requirements.

***counts as the additional Math/Science course deom a department-approved list of courses. Required in the CS major Ancillary requirements.

Requirements for a Minor in Computer Science: (Minimum of 20 credits)

CS 101	Basics of Computer Science
CS 135	Programming for Non-CS Majors
CS 140	Introduction to Programming
CS 155	Computer Networking, Security and Databases
CS 242	Data Structures

One more Computer Science courses at the 200 level or above.

Interdisciplinary Minor in Web Development: (18 Credits)

All courses must be chosen from the Computer Science (CS) and Communication (CM) department courses list (listed below).

Three (3) credits of the required 18 credits may be completed as an internship in the web development or web design area, in either the Computer Science or the Communication department in consultation with the CS department.

At least 9 credits (3 courses) must be completed from the CS courses list.

At least 6 credits must be completed from the CM courses list.

List of Computer Science Department Courses:

CS 161	Basics of Web Design
CS 261	Advanced Web Design Using Scripting Languages
CS 155	Computer Networking, Security and Databases
CS 265	Database Applications

List of Communication Department Courses:

CM 105	Media Writing
CM 160	Introduction to Digital Imaging
CM 180	Introduction to Advertising
CM 247	Introduction to Multimedia
CM 374	Advanced Multimedia

Computer Science Courses

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

CS 101 Basics of Computer Science

LASC—Quantitative Reasoning

Prerequisite: Familiarity with basic computer operations, Math placement code of 3 or above

A survey course that provides a foundation in the field of Computer Science by presenting a practical and realistic understanding of the field.
Offered every year. 3 credits.

CS 120 Microcomputer Applications

LASC—Quantitative Reasoning

Prerequisite: Familiarity with basic computer operations, Math placement code of 3 or above

Learning state-of-the-art application packages including but not limited to spreadsheets and database software.
Offered every year. 3 credits. (Credit will not be awarded for both CS 120 and CS 124.)

CS 124 Health Informatics

LASC – Quantitative Reasoning

Prerequisite: Familiarity with basic computer operations, Math placement code of 3 or above

Use of computers and information systems in health care. Databases and spreadsheets. Electronic health records. Privacy and policy issues.
Offered every year. 3 credits (Credit will not be awarded for both CS 120 and CS 124)

CS 135 Programming for Non-CS Majors

LASC – Quantitative Reasoning
Prerequisite: Familiarity with basic computer operations, Math placement code of 3 or above

Introduction to programming. Emphasis on practical skills, working with data sets, doing analysis and visualization. No prior programming experience required.
Offered every year. 3 credits.

CS 140 Introduction to Programming

Prerequisite: CS 101

Introduction to fundamental structures and concepts of Computer Science including object-oriented programming; three lectures and one two-hour laboratory.
Offered every year. 4 credits.

CS 155 Computer Networking, Security and Databases

LASC – Quantitative Reasoning
Prerequisite: CS 101
This course covers network protocols and the Internet; computer security fundamentals; basics of relational databases and SQL queries.
Offered every year. 3 credits.

CS 161 Basics of Web Design

Introduces concepts needed for creation, design and implementation of effective web pages. Latest versions of mark-up language(s) will be used.
Offered every year. 3 credits.

CS 193 Special Topics in Computer Science for First-Year Students

All "193" courses are approved for LASC but may vary by section. See current course listing for specific LASC area approval.
Introductory level course covering topics of special interest to first-year students. Offered only as a First-Year Seminar.
3 credits.

CS 242 Data Structures

LASC - Quantitative Literacy Across Curriculum
Prerequisite: CS 140. Prerequisite or corequisite: MA 220
Introduces time complexity and covers fundamental data structures: lists, stacks, queues, search trees, dictionaries, priority queues, B-trees and inverted files.
Offered every year. 4 credits.

CS 254 Computer Organization and Architecture

Prerequisites: CS 140, EN 102. Prerequisite or corequisite: MA 290

Combinational and sequential circuits, assembly language programming, digital computer architecture, instruction sets, addressing modes, memory hierarchies, I/O, and control circuits. Three lecture hours and two laboratory hours per week.
Offered every year. 4 credits.

CS 261 Advanced Web Design Using Scripting Languages

Prerequisite: CS 161

This course covers scripting languages and teaches how to make the web pages interactive by embedding executable scripts into them.
Offered every 2 years. 3 credits.

CS 265 Database Applications

LASC – Quantitative Reasoning

Prerequisite: Familiarity with basic computer operations, Math placement code of 3 or above

This course introduces basic database concepts and teaches how to create a database; use SQL; and create database applications.
Offered every 2 years. 3 credits.

CS 282 UNIX Systems Programming

Prerequisite: CS 242

Problem solving and software design using C; introduction to UNIX programming utilities and text manipulation; low-level system programming in UNIX and C.
Offered every year. 3 credits.

CS 297 Selected Topics in Computer Science

Topics of mutual interest to students and faculty.
1-4 credits.

CS 335 Networking and Web Security

Prerequisite: CS 282

This course covers web and security problems, solutions, and techniques. Encryption, worms, viruses, firewall, safer practices, etc. are covered.
Offered every 2 years. 3 credits.

CS 343 Software Construction, Design and Architecture

Prerequisites: CS 242, EN 252

Software construction techniques and tools, software architectures and frameworks, design patterns, object-oriented design and programming. Efficiency, reliability and maintainability of software.
Offered every year. 3 credits.

CS 348 Software Process Management

Prerequisites: CS 343, CM 110, UR 230

Project management including planning, progress measurement, estimation, and risk assessment. Functional and non-functional requirements. Software licenses, contracts and intellectual property.
Offered every year. 3 credits.

CS 353 Information Organization, Management and Retrieval

Prerequisites: CS 155, CS 242. Prerequisite or corequisite: CS 373

The course introduces fundamental concepts, standards, technologies and methods for information organization, storage, management, retrieval and recovery.
Offered every year. 3 credits.

CS 365 Client Server Computing Using the Internet

Prerequisite: CS 242

This course covers what client/server is and covers various client/server models and explores the Internet from a client/server perspective.
Offered every 2 years. 3 credits.

CS 371 Computability Theory

Prerequisites: CS 140, MA 290

This course provides an introduction to theoretical computer science. Covers the fundamentals of automata theory, formal languages, and computability theory.
Offered every 2 years. 3 credits.

CS 373 Operating Systems

Prerequisites: CS 254, CS 282, EN 252

Hardware and software as an integrated system; development of system software for process management, resource allocation, memory management and I/O processing.
Offered every year. 3 credits.

CS 383 Cloud, Parallel and Distributed Computing

Prerequisite: CS 373

The course introduces basics of Cloud Computing and fundamental computing technologies used for Big Data platforms such as Parallel, Distributive and Cluster computing models.
Offered every year. 3 credits.

CS 400 Database Design

Prerequisites: CS 242, EN 252, CM 110

Introduces database models with emphasis on relational model; ER diagrams, relational calculus, relational algebra and SQL, normalization, transaction processing and recovery.
Offered every 2 years. 3 credits.

CS 401 Software Development Process

Prerequisite: CS 375

This course deals with software as an engineered product that requires planning, analysis, design, implementation, testing and maintenance.
Offered every year. 3 credits.

CS 405 Data Communications and Networking

Prerequisites: CS 373, EN 252, CM 110

Data transmission, encoding, interfacing, synchronization, data-link control, multiplexing, networking, circuit switching, packet switching, radio and satellite, local area networks, network access protocols.
Offered every 2 years. 3 credits.

CS 442 Algorithm Analysis

Prerequisites: CS 282, MA 200

Various complexity classes; algorithmic strategies, graph algorithms, pattern matching, cryptographic and geographic algorithms; NP-complete problems.
Offered every 2 years. 3 credits.

CS 443 Software Quality Assurance and Testing

Prerequisites: CS 343, MA 150 or MA 302

Requirements analysis and test plan design. Testing strategies and techniques. Test coverage using statistical techniques. Code reviews and inspections.
Offered every year. 3 credits.

CS 448 Software Development Capstone

LASC - Major Capstone

Prerequisites: CS 348, CS 373, CS 443

Development of a significant software system, following appropriate project and team management techniques. Requirements, design, implementation, quality assurance, professional, social and ethical issues.
Offered every year. 3 credits.

CS 453 Data Mining

Prerequisites: CS 242, CM 110, MA 150 or MA 302, UR 230

Topics include data warehousing and mediation techniques; data mining methods: rule-based learning, decision trees, association rules and sequence mining.
Offered every year. 3 credits.

CS 471 Artificial Intelligence

Prerequisites: CS 371,CS 242, EN 252

Introduction to central issues of constructing intelligence systems. Examines historical and future trends of AI research.
Offered every 2 years. 3 credits.

CS 472 Robotics

Prerequisites: CS 253, CS 282

Design and implementation of robotic systems, sensors and sensing, effectors, mechanics, control strategies and architectures, hardware and software issues.
Offered every 2 years. 3 credits.

CS 483 Big Data Analytics Capstone

LASC - Major Capstone

Prerequisites: CS 353, CS 383, CS 453

The course introduces methods and techniques used for Big Data analysis. The course discusses Analytics tools for a variety of data applications and includes a major team project.
Offered every year. 3 credits.

CS 497 Selected Topics in Computer Science

Prerequisite: CS 282

Selection of topics of mutual interest to students and faculty.
1-6 credits.

CS 498 Internship

Prerequisites: Approval by vote of Computer Science faculty; 21 credit hours in Computer Science courses including CS 282.

Working in and for an organization where skills can be tested in real situations in order to gain experience, increase knowledge in various functional areas, and establish important contacts with an organization.
Offered every year. 3 credits.

CS 499 Independent Study

Prerequisites: 18 credit hours in Computer Science including CS 282 and approval by vote of Computer Science faculty.

An opportunity for advanced students to examine topics not normally taught in other computer science courses. Geared to interests of both the student and the instructor.
Offered every year. 1-6 credits.

Education
Department of Education

DISCLAIMER: REGULATIONS FOR TEACHER LICENSURE ARE CURRENTLY UNDER REVIEW BY THE MASSACHUSETTS DEPARTMENT OF ELEMENTARY AND SECONDARY EDUCATION. AS A RESULT, THE PROGRAMS DESCRIBED BELOW MAY BE SUBJECT TO CHANGE AT ANY TIME.

Faculty

Christina L. Bebas, Assistant Professor (2010)
B.A., Stonehill College; M.Ed., Worcester State College;
Ed.D., (2012) Northeastern University

Margaret Pray Bouchard, Professor (2002)
B.S., Bridgewater State College; M.Ed., Boston College; Ed.D, Boston University

Caroline M. Chiccarelli, Associate Professor (2001)
A.B., Newton College of the Sacred Heart; M.A., Fairleigh Dickinson University;
Ph.D., University of Connecticut

Diane Tighe Cooke, Professor (2002)
B.S., Louisiana State University; M.A., University of Colorado-Boulder;
Ph.D., University of Colorado-Boulder

Douglas R. Dawson, Associate Professor (2009)
B.A., Princeton University; Ph.D., University of California at Irvine

Carol B. Donnelly, Professor (1997), Department Chair
A.B., Wellesley College; M.A., University of Miami; M.Ed., Harvard University;
Ed.D, Boston University

Denise Foley, Associate Professor (2010)
B.A., College of the Holy Cross; M.Ed., Bridgewater State College; C.A.G.S., Fitchburg State College; Ed.D., Indiana University of Pennsylvania

Sue Fan Foo, Professor (2004)
M.Ed., Ed.D., University of Cincinnati

Pamela Hollander, Assistant Professor (2012)
B.A., State University of New York at Binghamton; M.Ed., Rutgers University;
Ed.D., University of Massachusetts, Amherst

Raynold M. Lewis, Professor (1998), Associate Dean for Education
BTh., West Indies College; M.Ed., Worcester State College; Ph.D., Illinois State University

Patrick J. O'Connor, Professor (1995)
B.A., Assumption College; M.A., Niagara University; Ed.D., University of Massachusetts

Margarita Perez, Professor (1999)
B.A., Mount Holyoke College; M.A., Ed.D., Teachers College, Columbia University

Elaine G. Tateronis, Professor Emeritus (1996)
B.S., M.Ed., Worcester State College; Ed.D., Boston College

Audrey E. Wright, Professor (2002)
B.S., M.Ed., Worcester State College; Ed.D., University of Massachusetts

Kirby L. Wycoff, Assistant Professor (2013)
B.A., Lehigh University; M.Ed., Teachers College, Columbia University;
Ph.D. Rutger's University.

Sara L. Young, Associate Professor (2010)
B.A., School for International Training; M.S.T., New School for Social Research; Ed.D., University of Massachusetts, Amherst.

The Education Department offers a wide range of undergraduate and graduate programs in professional education. Students can become licensed to teach in early childhood (PK-2) with and without disabilities, elementary (1-6), middle (5-8), or secondary (8-12) schools or credentialed to teach in preschool and day care programs. The Department programs offer a blending of classroom and fieldwork approaches. Kappa Delta Pi, the International Honor Society in education, is available to outstanding upper-division students. Graduate programs provide opportunities for students to prepare for careers in Reading, Educational Administration, Moderate Special Needs and School Psychology, as well as in Early Childhood, Elementary, Middle, or Secondary Education.

To teach in the Commonwealth of Massachusetts a teaching license is required. The Worcester State University Teacher Education program is recognized by the Massachusetts Department of Elementary and Secondary Education as having an approved program in the fields of Early Childhood Education, Elementary Education, Middle School Education and Secondary School Education. Students in the Elementary and Early Childhood Education programs have two complete majors, one in a liberal arts and science area and one in education. The Middle and Secondary school programs have a major in content and a minor in education. The Massachusetts Test for Educator Licensure (MTEL) is embedded in the program at various stages and must be passed for completion of the program and licensure.

The Initial Licensure Teacher Education Program at Worcester State University is awarded TEAC accreditation by the Inquiry Brief Commission of the Council for the Accreditation of Educator Preparation (CAEP) for a period of seven years, from May 2014 - May 2021. The accreditation does not include individual education courses that the EPP offers to P-12 educators for professional development, re-licensure, or other purposes.

Early Childhood Education Major

The Early Childhood Education major prepares candidates for the Massachusetts Department of Elementary and Secondary Education Initial License as a teacher of children in public school classrooms, PK through grade 2. The program of studies is based upon a broad liberal arts foundation and an integrated professional teacher preparation program. A course waiver process is available for transfer students where appropriate. Fieldwork accompanies most education courses and is a necessary component of the program. Student prepracticum experiences should include a wide variety of field settings. Students should attend different and varied schools in urban, rural and suburban settings. They should also vary their placements and grade levels in different school buildings within districts to insure a well rounded experience.

The Massachusetts Test for Educator Licensure (MTEL) is embedded in the program at various stages and must be passed for completion of the program and licensure.

Early Childhood Education Major Teacher Licensure Program (Massachusetts Public Schools, PK-2)

Requirements for a Major in Early Childhood Education leading to MA Department of Elementary and Secondary Education Initial Licensure (PK-2): 39 credits

ED 160	Early Childhood Education Today
ED 200	Best Practices for English Language Learners
ED 206	Young Children, Learning and Special Needs
ED 211	Integrating Science, Social Studies and the Arts into Early Childhood Education Curriculum
ED 286	Assessment of Development and Learning of Typical and Atypical Children
ED 307	ECE: Science
ED 308	ECE: Mathematics
ED 313	Practicum in Preschool Education
ED 314	Early Literacy with Young Children
ED 340	Language Arts and Literacy for the Primary Grades
ED 405	Classroom Management and Child Guidance Techniques in Early Childhood Education
ED 430	Practicum in Primary Education (6 credits)

Prerequisite Courses:

MA 130	Numbers and Operations for Teachers
PS 210	Developmental Psychology

Recommended Courses:

HE 120	Health and Nutrition OR
HE 100	Personal Health
MA 132	Geometry, Measurement, Probability and Statistics for Teachers

Students are required to take specific liberal arts and science courses to satisfy foundation and distribution requirements.

Early Childhood Education Teacher Licensure majors must also complete an academic major in Biology, Chemistry, English, Geography, History, Mathematics, Natural Science, Psychology, Sociology, Spanish, or Visual and Performing Arts.

Admission to the Early Childhood Education Major

Early Childhood Education majors seeking the MA Department of Elementary and Secondary Education Initial License will progress through a three-stage process. Each stage must be satisfactorily completed before passage to the next stage.

Stage I: Early Childhood Major

1. Students demonstrate competence in communication skills by completing the following course with a grade of C or higher.

   EN 102 English Composition II (or equivalent)

2. Students demonstrate competence in Math with a grade of C or higher in the following course:

   MA 130 Numbers and Operations for Teachers

3. Students must submit a Criminal Offender Records Information (CORI) application and be approved prior to beginning classroom observations in the Worcester Public Schools. No student is allowed to do fieldwork unless approval of the CORI has been received from the state.

4. Students demonstrate potential for teaching children by completing all of the following courses with a grade of C+ or higher earning a cumulative GPA of 2.5.

   PS 210 Developmental Psychology
   ED 160 Early Childhood Education Today (10 hours fieldwork)
   ED 206 Young Children, Learning, and Special Needs (15 hours fieldwork)
   ED 211 Integrating Science, Social Studies and the Arts in Early Childhood Education (12 hours fieldwork)
   ED 286 Assessment of Development and Learning of Typical and Atypical Children (5 hours fieldwork)

5. Students must receive a passing score on the Massachusetts Test for Educator Licensure (MTEL) Communication and Literacy Skills Test.

6. Any departure from the prescribed program of study for teacher licensure must have Waiver Committee approval prior to advancement to Stage II.

Stage II: Admission into the Early Childhood Licensure Program

1. Upon satisfactory completion of Stage I requirements, students are eligible to apply for formal admission to the Early Childhood Education Licensure Program. The application must include MTEL test results and transcripts of all previous course work. Approval by the Education Department is necessary for a student to progress to Stage II.

   During Stage II, students must complete all of the following courses with a grade of C+ or higher AND earn a cumulative GPA of 2.7. Fieldwork accompanies the following methods courses.

   ED 200 Best Practices for English Language Learners
   ED 307 ECE: Science (10 hours fieldwork)
   ED 308 ECE: Math (10 hours fieldwork)
   ED 313 Practicum in Preschool Education
   ED 314 Early Literacy with Young Children (10 hours fieldwork)
   ED 340 Language Arts and Literacy for the Primary Grades (10 hours fieldwork)

2. After completing 90 credits of academic work, students may apply for formal admission into ED 313: Practicum in PK Education. This application will be reviewed and acted upon by the Licensure Officer. Additional information regarding formal application for the Preschool practicum is available from the Education Department.

Stage III: Early Childhood Education Major – Practicum

1. Upon satisfactory completion of Stage II requirements, students are eligible to apply for formal admission into ED 430: Practicum in Primary Education (Corequisite ED 405).
2. Students must have attained senior standing (90 credits of course work) to complete the Primary Practicum.
3. This application will be reviewed and acted upon by the Licensure Officer.
4. Students convicted of a felony may be denied admission to student teaching.
5. Students must have received a passing score on all portions of the Massachusetts Test for Educator Licensure (Communication and Literacy, Early Childhood, and Foundations of Reading).

Additional information regarding formal application for the Primary Practicum is available from the Education Department.

Department of Education: Early Childhood Education & Psychology
Sample Timeline For Completion of Degree

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
ED 160	Early Childhood Education Today	3
EN 101	English Composition I	3
LASC	First-Year Seminar	3
MA 130	Number and Operations for Teachers (LASC QR)	3
PS 101	General Psychology I (LASC HBS)	3
	Semester Subtotal	**15**

Semester Two		
Course No.	**Course Name**	**Credits**
EN 102	English Composition II	3
HI 111	U.S. History I (LASC Const)	3
ED 206	Young Children Learning and Special Needs (LASC DAC)	3
PS 210	Development Psychology	3
GS 101	Physical Geography (LASC NSP)	3
	Semester Subtotal	**15**
Comments	EN 101 & 102 satisfies LASC writing. Students should take the Communication and Literacy Skills portion of the MTEL after completing EN 102	

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
ED 211	Integrating Social Studies and Fine Arts in ECE	3
HI 112	US History II (LASC USW)	3
HE 100	Personal Health (LASC ICW)	3
MA 132	Geometry, Measurement, Probability & Statistics for Teachers (LASC QR)	3
PS 275	Psychological Statistics (LASC QLAC)	4
	Semester Subtotal	**16**

Semester Four		
Course No.	**Course Name**	**Credits**
ED 286	Assessment of Development and Learning in ECE	3
ED 339	Children's Literature: Multicultural Literature for PK-9 (LASC TLC)	3
PS 205	Research Methods	3
PS 330	Theories of Personality	3
NS 120	Integrated Science (LASC NSP)	3
	Semester Subtotal	**15**

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
ED 314	Early Literacy with Young Children (LASC WAC)	3
ED 307	ECE: Science	3
MU 237	Music in Schools (LASC CA)	3
HI 103	World Civilization (LASC GP)	3
PS 318	Behavior Management Techniques	3
PS 345	Cognitive Psychology (LASC WAC)	3
	Semester Subtotal	**18**

Semester Six		
Course No.	**Course Name**	**Credits**
ED 308	ECE: Mathematics (LASC GRAC)	3
ED 340	Language Arts and Literacy in the Primary Grades	3
	ELECTIVE	3
PS 307	Applied Research Methods	3
PS 252	Applied Social Psychology	3
	Semester Subtotal	**15**
Comments	Students should take the Early Childhood portion of the MTEL by the end of their junior year.	

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
ED 200	Best Practices for English Language Learners (LASC CAP)	3
PS 310	Develop of Exceptional Children	3
PS XXX	Psychology Elective	3
ED 400	Inclusive Early Childhood Education	3
ED 313	ECE: Preschool Practicum	3
	Semester Subtotal	**15**
Comments	Students must successfully complete all sections of the MTEL before enrolling in ED 430 and ED 405	

Semester Eight		
Course No.	**Course Name**	**Credits**
ED 405	Classroom Management and Child Guidance in ECE (LASC CAP)	3
ED 430	Student Teaching in ECE: Primary Practicum	6
PS XXX	Psychology Elective	3
	Semester Subtotal	**12**

TOTAL CREDITS= 121

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

Elementary Education Major Teacher Licensure Program

The Elementary Education major prepares candidates for Initial Licensure as a teacher of children in a public school classroom, grades 1 through 6. The program of study is based upon a broad liberal arts foundation and an integrated professional teacher preparation program. A course waiver process is available for transfer students where appropriate. Fieldwork accompanies most education courses and is a necessary component of the program. Student prepracticum experiences should include a wide variety of field settings. Students should attend different and varied schools in urban, rural and suburban settings. They should also vary their placements and grade levels in different school buildings within districts to insure a well rounded experience.

The Massachusetts Test for Educator Licensure (MTEL) is embedded in the program at various stages and must be passed for completion of the program and licensure.

Requirements for a Major in Elementary Education: 42 credits

ED 148	Foundations of Reading
ED 155	Teaching and Learning Elementary School
ED 200	Best Practices for English Language Learners
ED 250	Educational Psychology
ED 275	Curriculum and Instruction in Elementary Education
ED 320	Elementary Science
ED 325	Elementary Math
ED 330	Elementary Social Studies and Multiculturalism
ED 343	Elementary Reading, Language Arts and Literature

ED 425	Seminar: Applying Educational Principles
ED 435	Student Teaching in the Elementary School

Prerequisite Course:

MA 130	Number and Operations for Teachers
MA 131	Patterns, Functions and Algebra for Teachers
MA 132	Geometry, Measurement, Probability and Statistics for Teachers
PS 210	Development Psychology

Recommended Courses:

HE 100	Personal Health
HE 120	Health and Nutrition

Students will also be required to take specific liberal arts and science courses to satisfy LASC requirements.

Elementary Education majors seeking Initial Licensure must also complete an academic major in Biology, Chemistry, English, Geography, History, Mathematics, Natural Science, Psychology, Sociology, Spanish, or Visual and Performing Arts.

Admission to the Elementary Education Major

Students planning to major in Elementary Education will progress through a three-stage process. Each stage must be satisfactorily completed before passage to the next stage.

Stage I Elementary Education Major

1. Students must demonstrate competence in communication skills by completion of the following course with a grade of C or higher:

EN 102	English Composition II (or equivalent)

2. Students must demonstrate competence in Math with a grade of C or higher in the following courses:

MA 130	Numbers and Operations for Teachers
MA 131	Patterns, Functions and Algebra for Teachers
MA 132	Geometry, Measurement, Probability and Statistics for Teachers

3. Students must submit a Criminal Offender Records Information (CORI) application and be approved prior to doing classroom observations in Worcester Public Schools. No student is allowed to do fieldwork unless approval of the CORI has been received from the state.

4. Students demonstrate potential for teaching children by completing all of the following courses with a grade of C+ or higher AND earn a cumulative GPA of 2.5.

PS 210	Developmental Psychology
ED 155	Teaching and Learning in the Elementary School (15 hours fieldwork)
ED 250	Educational Psychology (10 hours fieldwork)
ED 275	Curriculum and Instruction in Elementary Education (10 hours fieldwork)

5. Students must have received a passing score on the Communication and Literacy Skills Test (MTEL).

6. Any departure from the prescribed program of study for teacher licensure must have Waiver Committee approval prior to advancement to Stage II.

Stage II Elementary Education Major

1. Upon satisfactory completion of Stage I requirements, the student is eligible to apply for formal admission to the Elementary Education Licensure Program. The application must include MTEL test results and transcripts of all previous course work. Approval by the Education Department is necessary for a student to progress to Stage II.

2. During Stage II, students must complete all of the following courses with a grade of C+ or higher AND earn a cumulative GPA of 2.7. Fieldwork accompanies the following methods courses.

ED 200	Best Practices for English Language Learners
ED 320	Elementary Science (10 hours fieldwork)
ED 325	Elementary Math (10 hours fieldwork)
ED 330	Elementary Social Studies and Multiculturalism (10 hours fieldwork)
ED 343	Elementary Reading, Language Arts and Literature (20 hours fieldwork)

Stage III Elementary Education Major – Practicum

1. Upon satisfactory completion of Stage II requirements, the student is eligible to apply for formal admission into the Practicum, ED 435 Practicum Teaching: Elementary School (Corequisite ED 425).
2. Students must have received a passing score on the Massachusetts Test for Educator Licensure (MTEL) in Communication and Literacy Skills, Foundations of Reading and the new General Curriculum Test for Elementary Majors which includes a separately scored Mathematics subtest.
3. The Stage III application will be reviewed and acted upon by the Licensure Officer.
4. Students must have attained senior standing (90 credits of course work) to student teach.
5. Students convicted of a felony may be denied admission to student teaching.

Additional information regarding formal application into student teaching is available from the Education Department.

Department of Education: Elementary Education & Psychology

Sample Timeline for Completion of Degree

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
LASC	First-Year Seminar	3
EN 101	English Composition I	3
MA 130	Number and Operations for Teachers (LASC QR)	3
PS 101	General Psychology I (LASC HBS)	3
ED 155	Teaching and Learning in Elementary School	3
	Semester Subtotal	**15**

Semester Two		
Course No.	**Course Name**	**Credits**
EN 102	English Composition II	3
HI 111	U.S. History I (LASC USW)	3
MA 131	Patterns Functions and Algebra (LASC QR)	3
PS 210	Development Psychology	3
PS 250	Social Psychology	3
	Semester Subtotal	**15**
Comments	EN 101 & 102 satisfies LASC writing. Students should take the Communication and Literacy Skills portion of the MTEL after completing EN 102	

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
ED 250	Educational Psychology	3
HI 112	U.S. History II (LASC Constitutions)	3
EN 132	World Literature (LASC GP, DAC)	3
MA 132	Geometry, Measurement, Probability & Statistics for Teachers (LASC QR)	3
PS 205	Research Methods	3
	Semester Subtotal	**15**
Comments	Students should take the Mathematics portion of the MTEL after completing MA 130, 131 and 132	

Semester Four		
Course No.	**Course Name**	**Credits**
ED 275	Curriculum and Instruction in Elementary Education	3
PS 275	Psychological Statistics (LASC QLAC)	4
TH 191	Introduction to Theatre (LASC CA)	3
ED 148	Foundations of Reading	3
NS 120	Integrated Science (LASC NSP)	4
	Semester Subtotal	**17**

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
GS 101	Physical Geography (LASC NSP)	3
ED 343	Reading Language Arts and Literature	6
ED 325	Elementary Mathematics (LASC GRAC)	3
PS 318	Behavior Management Techniques	3
PS 325	Psychology of Learning (LASC WAC)	3
	Semester Subtotal	**18**
Comments	Students should take the Foundations of Reading portion of the MTEL after completing ED 343.	

Semester Six		
Course No.	**Course Name**	**Credits**
ED 330	Elementary Social Studies	3
ED 320	Elementary Science	3
HE 100	Personal Health (LASC ICW)	3
PS 335	Abnormal Psychology	3
PS 345	Cognitive Psychology (LASC WAC)	3
	Semester Subtotal	**15**

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
PS 307	Applied Research Methods	3
PS 310	Development of Exceptional Children	3
PS XXX	Psychology Elective	3
HI 104	World Civilization (TLC)	3
ED 200	Best Practices for English Language Learners (DAC)	3
	Semester Subtotal	**15**
Comments	Students must successfully complete all sections of the MTEL before enrolling in ED 425 and ED 435	

Semester Eight		
Course No.	**Course Name**	**Credits**
ED 425	Seminar: Applying Educational Principles (LASC CAP)	3
ED 435	Student Teaching in ELE	9
	Semester Subtotal	**12**

TOTAL CREDITS= 122

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

Middle School Education (Grades 5–8) Initial Teacher Licensure Program

Worcester State University offers the Initial Licensure Program in Middle School Education (grades 5-8). The Massachusetts Test for Educator Licensure (MTEL) is embedded in the program at various stages and must be passed for completion of the program and licensure.

Fieldwork accompanies most education courses and is a necessary component of the program. Student prepracticum experiences include a wide variety of field settings. Students should attend different and varied schools in urban, rural and suburban settings. They should also vary their placements and grade levels in different school buildings within districts to insure a well rounded experience.

The Department of Elementary and Secondary Education offers Initial Licensure programs in the following areas in cooperation with liberal arts and sciences departments in the Worcester State University Education Program.

Teacher of Biology	(5-8)
Teacher of Chemistry	(5-8)
Teacher of English	(5-8)
Teacher of History	(5-8)
Teacher of General Science	(5-8)
Teacher of Health/Family and Consumer Sciences	(5-12)
Teacher of Political Science	(5-8)
Teacher of Mathematics	(5-8)
Teacher of Earth Science	(5-8)
Teacher of Spanish	(5-12)

For required courses in these areas students should consult their liberal arts/science advisor.

Admission Requirements: Undergraduate Program.

Students planning to minor in Middle School Education will progress through a three-stage process. Each stage must be completed satisfactorily prior to passage to the next stage. **Students will major in the Liberal Arts and Science content area which they intend to teach.**

Stage I: Middle School Education Minor

1. Students must complete EN 102 English Composition II with a grade of C or higher.
2. Students must complete 15 semester hours in the subject major.
3. Students must submit a Criminal Offender Records Information (CORI) application and be approved prior to beginning classroom observations for Education courses. No student is allowed to do fieldwork unless approval of the CORI has been received from the state.
4. Students demonstrate potential for teaching children by completing all of the following courses with a grade of C+ or higher AND earning a cumulative GPA of 2.5.

ED 149	Introduction to the Teaching Profession (5 hours fieldwork)
PS 210	Developmental Psychology
ED 250	Educational Psychology (10 hours fieldwork)
ED 251	Foundations of Education (15 hours fieldwork)
ED 270	Diversity and Multicultural Education (20 hours fieldwork)

5. Students must have received a passing score on the Massachusetts Test for Educator Licensure (MTEL) Communication and Literacy Skills Test.
6. Any departure from the prescribed program of study for teacher licensure must have Waiver Committee approval prior to advancement to Stage II.

Stage II: Middle School Education Licensure Program

1. Upon satisfactory completion of Stage I requirements, the student is eligible to apply for formal admission into the middle school education minor. The application must include MTEL test results and transcripts of all previous course work. Approval by the Education Department is necessary for a student to progress to Stage II.
2. During Stage II, students must complete all of the following courses with a grade of C+ or higher AND earn a cumulative GPA of 2.7. Fieldwork accompanies the following methods courses.

ED 200	Best Practices for English Language Learners
ED 352	Principles of Curriculum and Evaluation in the Middle School (10 hours fieldwork)
ED 354	Effective Teaching in the Middle School (15 hours fieldwork)

3. Students must have received a passing score on the Massachusetts Test for Educator Licensure (MTEL) in their major subject area and communication and literacy skills.

Stage III: Middle School Education Minor – Practicum

1. Upon satisfactory completion of Stage II requirements, the student is eligible to apply for:

   ED 485 Practicum in Teaching Middle School (9 credits)
   ED 424 Seminar (3 credits)

2. Students must have attained senior standing (90 credits of course work) to student teach.
3. The Stage III application will be reviewed and acted upon by the Licensure Officer.
4. Students convicted of a felony may be denied admission to student teaching.

Additional information regarding formal application into student teaching is available from the Education Department.

Secondary School Education (Grades 8–12) Initial Teacher Licensure Program

Worcester State University offers the Initial Licensure in Secondary School Education (grades 8-12). The Massachusetts Test for Educator Licensure (MTEL) is embedded in the program at various stages and must be passed for completion of the program and licensure.

Fieldwork accompanies most education courses and is a necessary component of the program. Student prepracticum experiences include a wide variety of field settings. Students should attend different and varied schools in urban, rural and suburban settings. They should also vary their placements and grade levels in different school buildings within districts to insure a well rounded experience.

The Department of Elementary and Secondary Education offers Initial Licensure programs in the following areas in cooperation with the liberal arts and sciences departments in the Worcester State University Education Program.

Teacher of English	(8-12)
Teacher of History	(8-12)
Teacher of Political Science	(8-12)
Teacher of Mathematics	(8-12)
Teacher of Chemistry	(8-12)
Teacher of Biology	(8-12)
Teacher of Earth Science	(8-12)
Teacher of Health/Family and Consumer Sciences	(5-12)
Teacher of Spanish	(5-12)

For required courses in these areas, students should consult their liberal arts/science advisor.

Admission Requirements: Undergraduate Program.

Students planning to minor in Secondary Education will progress through a three-stage process. Each stage must be completed satisfactorily prior to passage to the next stage. Students will major in Liberal Arts and Science content areas which they intend to teach.

Stage I: Secondary School Education Minor

1. Students must complete EN 102 English Composition II with a grade of C or higher.
2. Students must complete 15 semester hours in the subject major.
3. Students must submit a Criminal Offender Records Information (CORI) application and be approved prior to beginning observations for Education courses. No student is allowed to do fieldwork unless approval of the CORI has been received from the state.
4. Students demonstrate potential for teaching children by completing all of the following courses with a grade of C+ or higher AND earning a cumulative GPA of 2.5.

ED 149	Introduction to the Teaching Profession (5 hours fieldwork)
PS 210	Developmental Psychology
ED 250	Educational Psychology (10 hours fieldwork)
ED 251	Foundations of Education (15 hours fieldwork)
ED 270	Diversity and Multicultural Education (20 hours fieldwork)

5. Students must have received a passing score on the Massachusetts Test for Educator Licensure (MTEL) Communication and Literacy Skills Test.
6. Any departure from the prescribed program of study for teacher licensure must have Waiver Committee approval prior to advancement to Stage II.

Stage II: Secondary School Education Minor

1. Upon satisfactory completion of Stage I requirements, the student is eligible to apply for formal admission into the Secondary School Education minor. The application must include a satisfactory physical examination, MTEL test results and transcripts of all previous course work. Approval by the Education Department is necessary for a student to progress to Stage II.
2. During Stage II, students must complete all of the following courses with a Grade of C+ or higher AND earn cumulative GPA of 2.7. Fieldwork accompanies the following methods courses:

ED 200	Best Practices for English Language Learners
ED 351	Principles of Curriculum and Evaluation in the Secondary School (10 hours fieldwork)
ED 353	Effective Teaching in the Secondary School (15 hours fieldwork)

3. Students must receive a passing score on the Massachusetts Test for Educator Licensure (MTEL) in their major subject area and communication and literacy skills.

Stage III: Secondary School Education Minor – Practicum

1. Upon satisfactory completion of Stage II requirements, the student is eligible to apply for:
   ED 480 Practicum in Teaching Secondary School (9 credits)
   ED 424 Seminar (3 credits)
2. Students must have attained senior standing (90 credits of course work) to student teach.
3. The Stage III application will be acted upon by the Licensure Officer.
4. Students convicted of a felony may be denied admission to student teaching.

Additional information regarding formal application into student teaching is available from the Education Department.

Early Education and Care Program

(Early Intervention, Head Start, Private Preschool, and Group Day Care)

The Early Childhood Education major prepares students to enter the field of Early Education and Care and work in areas such as Early Intervention, Head Start, private preschool and group day care. The program integrates studies in liberal arts and sciences with the guidelines and standards presented by the MA Department of Early Education and Care. Fieldwork accompanies most education courses and is a necessary component of the program. A course waiver process is available for transfer students, and articulation agreements are in place with regional community colleges.

Requirements for Early Education and Care: 33 Credits

ED 160	Early Childhood Education Today
ED 206	Young Children, Learning, and Special Needs
ED 211	Integrating Science, Social Studies and the Arts into ECE Curriculum
ED 286	Assessment of Development and Learning of Typical and Atypical Children
ED 307	ECE: Science
ED 308	ECE: Math
ED 313	Practicum in Preschool Education
ED 314	Early Literacy with Young Children
ED 319	Advanced Field Experience in Early Childhood Education
ED 340	Language Arts and Literacy for the Primary Grades
ED 400	Inclusive ECE

Prerequisite Course:

PS 210	Development Psychology

Recommended Courses:

ED 200	Best Practices for English Language Learners.
HE 120	Health and Nutrition **OR**
HE 140	Creative Arts and Health
MA 130	Numbers and Operations for Teachers
MA 132	Geometry, Measurement, Probability and Statistics for Teachers

Students are required to take specific liberal arts and science courses to satisfy foundation and distribution requirements. See the student's advisor and consult degree audit.

Early Education and Care majors must either complete an academic major in the arts or sciences offered at Worcester State University and approved by the Department or complete a cluster of 30 credits of course work which address the MA Department of Early Education and Care's Core Teacher Competencies. A list of possible courses is available in the Education Department.

Admission to Early Education and Care

Early Education and Care students will progress through a three-stage process. Each stage within this track must be satisfactorily completed before passage to the next stage.

Stage I: Early Education and Care

1. Students demonstrate competence in communication skills by completing the following course with a grade of C or higher.

   EN 102 English Composition II (or equivalent)

2. Students must submit a CORI application and be approved prior to beginning classroom observations in the Worcester Public Schools. No student is allowed to do fieldwork unless approval of the CORI has been received from the state.

3. Students demonstrate potential for teaching children by completing all of the following courses with a grade of C+ or higher in AND earning a cumulative GPA of 2.5 or higher.

ED 160	Early Childhood Education Today
ED 206	Young Children, Learning, and Special Needs
ED 211	Integrating Science, Social studies and the Arts in Early Childhood Education
ED 286	Assessment of Development and Learning of Typical and Atypical Children

4. Any departure from the prescribed program of study must have Waiver Committee approval prior to advancement to Stage II.

Stage II: Early Education and Care

1. Upon satisfactory completion of Stage I requirements, the student is eligible to apply for formal admission to the Early Education and Care Program. The application must include a satisfactory physical examination, and transcripts of all previous course work. Approval by the Education Department is necessary for a student to progress to Stage II.

   During Stage II, students must complete all of the following courses with a grade of C+ or higher.

   Stage II will consist of the following courses. Fieldwork accompanies the following methods courses.

ED 307	ECE: Science
ED 308	ECE: Math
ED 314	Early Literacy with Young Children
ED 340	Language Arts and Literacy for the Primary Grades

Stage III: Early Education and Care

1.

ED 313	Practicum in Preschool Education
*ED 319	Advanced Field Experience in Early Childhood Education
ED 400	Inclusive Early Childhood Education

   *90 credits must be completed prior to taking ED 319. ED 400 should be taken as a corequisite with ED 319.

2. Students must apply for formal admission to ED 313 and ED 319: Advanced Field Experience in Early Childhood Education. This application will be reviewed and acted upon by the Licensure Officer. Additional information regarding formal application for the advanced practicum is available from the Education Department.

This program provides preparation for certification through the Department of Early Education and Care as a Lead Teacher for Preschool.

Note: This program does not lead to Massachusetts Department of Elementary and Secondary Education public school licensure. Students who complete this program and apply to the WSU post-baccalaureate non-degree initial licensure program must provide evidence that they have worked in the field for 3 years. Any departure from the prescribed program of study must have approval from the Department Chair.

Education Courses (Undergraduate)

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

MOST EDUCATION COURSES REQUIRE FIELDWORK

ED 101 Guided Preparation for Massachusetts Test for Education Licensure

Credits do not count towards graduation
Students work with faculty to prepare for one or more subtests of the MA test for Education Licensure. May be taken more than one time.

Offered every year. 3 institutional credits. Credits do not count toward graduation

ED 148 Introduction to the Foundations of Reading

This course provides an opportunity for prospective elementary and early childhood level teachers to acquire a strong foundation in current knowledge, perspective and procedures for teaching literacy in grades PK through 6.
Offered every year. 3 credits.

ED 149 Introduction to teh Teaching Profession, Middle/Secondary School

LASC—Human Behavior and Social Processes
This course will provide a basic understanding to the teaching aspects in middle and secondary classrooms. It will explore the Massachusetts Department of Education Professional Standards for Teachers and give students a general orientation to the profession. Principles of the teaching/learning process and related skills will be addressed, in addition to observable behaviors in the classroom setting(s). Students will be required to do 10 fieldwork observation hours in an accredited middle/secondary school.
Offered every year. 3 credits. Fieldwork: 5 hrs.

ED 155 Teaching and Learning in Elementary School

LASC—Individual and Community Well-Being

Overview of the teaching profession, examination of a variety of learning environments, organizing and managing classrooms, integrating curricula, observational techniques.
Offered every year. 3 credits. Fieldwork: 15 hrs.

ED 160 Early Childhood Education Today

LASC—Human Behavior and Social Processes
Exploration of programs, emphasizing developmentally appropriate practice, creativity motor skills. Discussion of families, community resources, play, integration of special needs.
Offered every year. 3 credits. Fieldwork: 12 hrs.

ED 193 Special Topics in Education for First-Year Students

All "193" courses are approved for LASC but may vary by section. See current course listing for specific LASC area approval.

Introductory level course covering topics of special interest to first-year students. Offered only as a First-Year Seminar.
Offered every year. 3 credits.

ED 200 Best Practices for English Language Learners

LASC—Thought Language and Culture; Diversity across the curriculum

Prerequisite: Admitted into Stage II

Research-based grade level subject matter instructional strategies, and performance assessments of English Language Learners are the focus of discussions and class projects.

Offered every year. 3 credits.

ED 206 Young Children, Learning and Special Needs

LASC—Individual and Community Well-Being; Diversity Across the Curriculum; Writing Across the Curriculum

Prerequisites: ED 160, EN 102

Analysis of development and learning based on current psychological theory. Structuring experiences to foster progress for typical and atypical children.
Offered every year. 3 credits. Fieldwork: 15 hrs.

ED 211 Integrating Science, Social Studies and the Arts in Early Childhood Curriculum

Prerequisites: PS 210, ED 160, ED 206

Designing and implementing programs, physical environment, regulations, planning, Massachusetts Curriculum Frameworks. Students design integrated units and implement activities.
Offered every year. 3 credits. Fieldwork: 12 hrs.

ED 250 Educational Psychology

Prerequisite: PS 210

Learning and developmental processes of typical and atypical learners. Motivation, relationships of intelligence, affect, and achievement. Application to teaching and learning.
Offered every year. 3 credits. Fieldwork: 10 hrs.

ED 251 Foundations of Education

Prerequisites: PS 210, ED 250

Critical examination of social, psychological, and philosophical factors, which underlie educational thought and practices in America, noting relevant historical antecedents.
Offered every year. 3 credits. Fieldwork: 15 hrs.

ED 270 Diversity and Multicultural Education

Prerequisites: PS 210, ED 250, ED 251

Analysis of goals, values and practices in educating culturally diverse student populations. Includes bilingual, special needs and gifted students.
Category 1. 3 credits. Fieldwork: 20 hrs.

ED 271 International ad Comparative Education

LASC—Global Perspectives, Individual and Community Well Being

This course compares the educational policies to practices and outcomes to two or more countries.
Offered every year. 3 credits.

ED 275 Curriculum and Instruction in Elementary Education

LASC—Writing Across the Curriculum

Prerequisites: ED 155, ED 250, and PS 210

Analysis of interactions in effective elementary schools through participation in and exploration of curriculum, teaching and learning roles. Field experience.
Offered every year. 3 credits. Fieldwork: 10 hrs.

ED 286 Assessment of Development and Learning of Typical and Atypical Children

Prerequisites: PS 210, ED 160, ED 206, ED 211

Development of skills to asses young children and identify special needs. Focus on child development and Massachusetts Curriculum Frameworks.
Offered every year. 3 credits. Fieldwork: 5 hrs.

ED 301 ECE: Math and Science

Prerequisite: Admitted into Stage II

Focus on early mathematical education and inquiry-based science program for young children in an integrated curriculum.
Offered every year. 3 credits.

ED 307 ECE: Science

Prerequisite: Admitted into Stage II

Teaching strategies that focus upon exploration, discovery, problem solving, experimentation, Piagetian theory. Addresses nationally recognized science education curricula guidelines.
Offered every year. 3 credits. Fieldwork: 10 hrs.

ED 308 ECE: Math

LASC-Quantitative Literacy Across the Curriculum

Prerequisite: Admitted into Stage II

Focus on Piaget's early mathematical theory. Techniques include teaching pre-math skills, logical mathematical knowledge, formal math using developmentally appropriate materials.
Offered every year. 3 credits. Fieldwork: 10 hrs.

ED 313 Practicum in Early Childhood Education: Preschool/Kindergarten

Prerequisites: Admitted into Stage II, Senior Status

150 hour practicum in an NAEYC accredited preschool/kindergarten/licensed day care center. Student apply content, methods, and materials from college courses.
Offered every year. 3 credits.

ED 314 Early Literacy with Young Children

LAS-Writing Across the Curriculum

Prerequisite: Admitted into Stage II

Early literacy skills, content and approaches include construction of meaning with written and spoken language, written language forms and functions, letter-sound relationship, phonemic awareness, vocabulary development and assessment. Methods of teaching second language are included.
Offered every year. 3 credits. Fieldwork: 10 hrs.

ED 317 ECE: Early Literacy, Children's Literature, and Language Arts

Prerequisite: Admitted into Stage II

Content, curriculum, materials, approaches to early literacy for all children. Includes whole language, comprehension, progress writing, beginning reading, and integrated literature.
Offered every year. 6 credits. Fieldwork: 20 hrs.

ED 319 Advanced Field Experience in Early Childhood Education

Prerequisite: ED 313 or equivalent

Students who have already completed a preschool practicum complete an additional 100-150 hour field experience in Early Childhood Education.
Offered every year. 3 credits.

ED 320 Elementary Science

Prerequisite: Admitted into Stage II

Thematically taught emphasizing engaging hands-on activities, constructivism, cooperative learning, authentic assessments, integrated curriculum, and relationships between Science, Math and Technology Curriculum Frameworks.
Offered every year. 3 credits. Fieldwork: 10 hrs.

ED 325 Elementary Math

LASC-Quantitative Literacy Across the Curriculum

Prerequisite: Admitted into Stage II

Emphasizes best practices in mathematics education, the role of conceptual knowledge in understanding mathematics, material development and assessment.
Offered every year. 3 credits. Fieldwork: 10 hrs.

ED 330 Elementary Social Studies and Multiculturalism

Prerequisite: Admitted into Stage II

Goals, curriculum, skills, issues, teaching strategies in educating culturally diverse population in a global context.
Offered every year. 3 credits. Fieldwork: 10 hrs.

ED 339 Children's Literature: Multicultural Literature for PK-9

LASC-Human Behavior and Social Processes; Thought Language and Culture; Diversity Across the Curriculum

Facets of literature for children and criteria for the selection of each; techniques and preparation and use.
Offered every year. 3 credits

ED 340 Language Arts and Literacy for the Primary Grades

Early literacy/language arts content, curriculum materials, and approaches including phonological awareness, phonics, vocabulary, fluency, comprehension, writing and assessment.
Offered every year. 3 credits. Fieldwork: 10 hrs.

ED 343 Elementary Reading, Language Arts and Literature

Prerequisite: Admitted into Stage II

Stresses interrelationships of oral/written communication; investigates concepts, skills and procedures for teaching literacy and using children's literature in grades 1-6.
Offered every year. 6 credits. Fieldwork: 20 hrs.

ED 351 Principles of Curriculum and Evaluation in the Secondary School

Prerequisite: Admitted into Stage II

Basic considerations in curriculum planning and implementation are examined. The role of evaluation and the design and use of assessment instruments are emphasized.
Offered every year. 3 credits. Fieldwork: 10 hrs.

ED 352 Principles of Curriculum and Evaluation in the Middle School

Prerequisite: Admitted into Stage II

Examines factors in curriculum planning and implementation at the middle school level. Evaluation models are presented and the design and use of assessment instruments are emphasized.
Offered every year. 3 credits. Fieldwork: 10 hrs.

ED 353 Effective Teaching in the Secondary School

LASC—Writing Across the Curriculum

Prerequisite: Admitted into Stage II

Considers teaching techniques in various disciplines using a variety of instructional strategies and teaching aids. Analyzes effective classroom management.
Offered every year. 3 credits. Fieldwork: 15 hrs.

ED 354 Effective Teaching in the Middle School

LASC—Writing Across the Curriculum

Prerequisite: Admitted into Stage II

Considers a variety of instructional designs including team teaching, horizontally integrated curriculum, and effective classroom management.
Offered every year. 3 credits. Fieldwork: 15 hrs.

ED 370 Contemporary Issues and Trends in Middle School Education

Prerequisite: Admitted into Stage II

This course is designed to give students opportunities to examine contemporary issues, trends, controversies, theories and practices in education. Students will engage in extensive reading, internet search and reflection on critical aspects of contemporary issues. The main focus of this course is on the implications of these initiatives for classroom teachers: efficient classroom practices, instructional planning and implementation, the use of modern technology, assessment procedures, classroom management, professional ethics, etc. The primary goal is to help students clarify how contemporary issues can lead to educational reforms and teaching excellence.
Offered every year. 3 credits.

ED 371 Contemporary Issues and Trends in Secondary School Education

Prerequisite: Admitted into Stage II

This course is designed to give students opportunities to examine contemporary issues, trends, controversies, theories and practices in education. Students will engage in extensive reading, internet search and reflection on critical aspects of contemporary issues. The main focus of this course is on the implications of these initiatives for classroom teachers: efficient classroom practices, instructional planning and implementation, the use of modern technology, assessment procedures, classroom management, professional ethics, etc. The primary goal is to help students clarify how contemporary issues can lead to educational reforms and teaching excellence.
Offered every year. 3 credits.

ED 400 Inclusive Early Childhood Education: Preschool through Grade 2

LASC - Major Capstone

Prerequisite: Admitted into Stage II

Special education law and procedures, modification of programs for English language learners, working with parents, and developing and implementing an anti-bias curriculum.
Offered every year. 3 credits.

ED 405 Classroom Management and Child Guidance Techniques

LASC - Major Capstone

Guided analysis/application of principles for students completing a primary practicum. Analysis of behavior, group and individual management strategies.
Offered every year. 3 credits.

ED 410 Special Topics

Prerequisite: ED 155 or equivalent

A seminar course on current issues or topics in education.
Offered every 2 years. 3 credits.

ED 424 Seminar: Teaching Practicum

LASC - Major Capstone

Prerequisite: Admitted into Stage III

Implications of the attempts to juxtapose theory and practice are analyzed from the viewpoint of becoming a professional teacher.
Offered every year. 3 credits.

ED 425 Seminar: Applying Educational Principles

LASC - Major Capstone

Prerequisite: Admitted into Stage III

Guided analyses and applications of principles and procedures for students completing their practicum.
Offered every year. 3 credits.

ED 430 Practicum in Early Childhood Education: Grade 1 or Grade 2

Prerequisite: Admitted into Stage III

Semester-long 200-hour practicum in first or second grade. Planning, implementing, evaluating learning. Setting includes children with special needs.
Offered every year. 6 credits.

ED 435 Practicum Teaching: Elementary School

Prerequisite: Admitted into Stage III

Actual teaching in a local school: principles, techniques, and responsibility of planning, executing, and evaluating teaching and learning for a full semester.
Offered every year. 9 credits. 300 hr. Practicum.

ED 450 Independent Study in Education

Prerequisite: Consent of instructor

For the student who wishes to pursue independent study in education, faculty members from other disciplines may be called upon to counsel student.
Offered every year. 1-6 credits.

ED 475 Practicum in Teaching

Prerequisite: Admitted into Stage III

Actual teaching in a local school: principles, techniques, and responsibility of planning, executing, and evaluating teaching and learning for a full semester.
Offered every year. 9 credits.

ED 480 Practicum in Teaching Secondary School

Prerequisite: Admitted into Stage III

Full semester teaching experience in a secondary school. Includes planning, teaching and evaluating learning experiences.
Offered every year. 9 credits. 300 hr. Practicum.

ED 485 Practicum in Teaching Middle School

Prerequisite: Admitted into Stage III

Full semester teaching experience in a middle school. Includes planning, teaching and evaluating learning experiences.
Offered every year. 9 credits. 300 hr. Practicum.

Geography and Earth Sciences
Department of Earth, Environment and Physics

Faculty

Patricia A. Benjamin, Associate Professor (2001), Department Chair
B.A., University of Oregon; M.L.S., University of Maryland; M.A., Ph.D., Clark University

Timothy L. Cook, Assistant Professor (2012)
B.S., Brown University; M.S., University of Delaware; Ph.D., University of Massachusetts

Janelle Cornwell, Visiting Professor (2014)
B.A., Prescott College; M.A., University of Denver; Ph.D., University of Massachusetts

Allison Dunn, Associate Professor (2007) (on sabbatical 2014-15)
B.A., Oberlin College; M.A., Ph.D., Harvard University

Frank R. Hall, Associate Professor (2013)
B.A., Kean University; M.S., Lehigh University; Ph.D., University of Rhode Island

William J. Hansen, Associate Professor (2005)
B.A., State University of New York at Albany; M.A., Hunter College;
Ph.D., City University of New York Graduate Center

Stephen Healy, Associate Professor (2007) (on leave 2014-15)
B.A., Hampshire College; M.S., Ph.D., University of Massachusetts

Douglas E. Kowalewski, Assistant Professor (2012)
B.S., Virginia Polytechnic Institute; Ph.D., Boston University

Geography is a science that examines physical and social processes and their interrelationships through the integrative concept of space. Earth systems science analyzes the systems and processes that shape the earth's surface including weather, climate, landforms and hydrology. Human geography analyzes social processes such as globalization, demographics, urbanization and the construction of cultural identities. Environmental geography examines the interactions between social and physical systems. Geographers explore these processes using such tools as maps, geographic information systems and remote sensing techniques.

Membership in Gamma Theta Upsilon, the international geography honor society, is available to distinguished students. Prospective members must have completed a minimum of 3 geography or earth science courses, have a GPA of at least 3.3 overall in those courses, and shall have completed at least 3 semesters of college course work. A prospective member is not required to be a geography major or minor.

Geography Honors Program: The Geography Honors Program is intended for outstanding majors interested in research as well as those who plan to pursue an advanced degree. Honors students will complete an original research project, defend the project before an approved review committee and present the project in at least one venue external to WSU. Applicants shall have completed the geography core courses through GE 315 and have 75 credits overall. Applicants should have a 3.5 GPA in the major although students with a 3.0 major GPA and a faculty sponsor may petition for admission. Application materials are available from the department chair.

Requirements for a Major: Minimum requirement for the major is completion of a six-course (20 credit) core curriculum and one of four concentrations. Students will declare a concentration in either General Geography, Environmental Studies, Geographic Information Systems or Earth System Science. Study Away/Study Abroad is strongly encouraged for geography majors.

Core Courses:

GS 101	Physical Geography	3
or		
GS 110	Meteorology	
GE 102	Human Geography	3
GS 140	Physical Geology	4
GS 216	GIS	4
GE 315	Research Methods	3
GE/GS 400	Geography Seminar	3
	Core Total	**20 credits**

Requirements for the Concentration in General Geography
In addition to the six core courses, students will complete:

At least 1 advanced course (200-400 level) in:	
Physical Geography	3
Human Geography	3
2 advanced courses in any category	6
Concentration Total	**12 credits**
Major Total	**32 credits**

Department of Earth, Environment and Physics: General Geography Concentration* Sample Timeline for Completion of Degree

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
LASC	First-Year Seminar	3
LASC	EN 101 English Composition I	3
LASC	Math course	3
GE 102	Human Geography	3
GS 101	Physical Geography	3
	Semester Subtotal	**15**

Semester Two		
Course No.	**Course Name**	**Credits**
LASC	EN 102 English Composition II	3
LASC	Constitutions course	3
LASC	Distribution Elective (TLC**)	3
LASC	Distribution Elective (GP**)	3
GS 140	Physical Geology	4
	Semester Subtotal	**16**

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
GS 216	Geographic Information Systems I	4
GS/GE 2xx	Elective	3
LASC	Distribution Elective (HBS**)	3
LASC	Distribution Elective (ICW**)	3
LASC	Distribution Elective (CA**)	**3**
	Semester Subtotal	**16**

Semester Four		
Course No.	**Course Name**	**Credits**
GS/GE 2xx	Elective	3
LASC	Lab Science	3-4
LASC	Distribution Elective (USW*)	3
LASC	Distribution Elective (QR**)	3
LASC	Distribution Elective (DAC**)	3
	Semester Subtotal	**15-16**

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
GE 315	Research Methods	3
GE/GS 2xx	Elective	3
LASC	Distribution Elective (NSP**)	3
LASC	Distribution Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Semester Six		
Course No.	**Course Name**	**Credits**
GE/GS 2xx	Elective	3
LASC	Distribution Elective (WAC**)	3
LASC	Distribution Elective (QLAC**)	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments		

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Semester Eight		
Course No.	**Course Name**	**Credits**
GE/GS 400	Senior Seminar	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments		

TOTAL CREDITS= 122-123

Note: *Students in this concentration typically have a second major, often education. For those students, many of the "general electives" would represent the second major and timing of LASC requirements may change. The sequence of LASC courses marked with ** is a suggestion but serves as a reminder that LASC designated courses must be taken to satisfy the LASC requirements

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices.

Requirements for the Concentration in Earth System Science
In addition to the six core courses, students will complete:

Ancillary requirements (may apply to LASC requirements):

MA 190	Precalculus	4
One of the following		4
CH 110	Introduction to General, Organic, and Biochemistry I	
CH 120	General Chemistry I	
PY 221	General Physics I	
PY 241	Physics I	

Required core courses:

GS 210	Geomorphology	4
GS 224	Oceanography	3
GS 230	Biogeography	3

Core electives: 12

4 upper level courses at the 200+ level, including one earth science course at the 300+ level. No more than one geography (GE) or geospatial course can be counted toward this requirement

Concentration Total	**22 credits**
Major Total	**42 credits**

Department of Earth, Environment and Physics: Geography—Earth System Science (ESS) Concentration Sample Timeline for Completion of Degree

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
LASC	First-Year Seminar	3
LASC	EN 101 English Composition I	3
LASC	Distribution Elective (GP*)	3
GE 102	Human Geography	3
GS 101	Physical Geography	3
	Semester Subtotal	**15**

Semester Two		
Course No.	**Course Name**	**Credits**
LASC	EN 102 English Composition II	3
LASC	Constitutions course	3
LASC	MA 150 Statistics	3
LASC	Distribution Elective (TLC*)	3
GS 140	Physical Geology	4
	Semester Subtotal	**16**

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
GS 216	Geographic Information Systems I	4
ESS core	GS 210, 225 or 230	3-4
LASC	Distribution Elective (USW*)	3
LASC	Distribution Elective (ICW*)	3
LASC	Distribution Elective (CA*)	**3**
	Semester Subtotal	**16-17**

Semester Four		
Course No.	**Course Name**	**Credits**
ESS core	GS 210, 225 or 230	3-4
ESS core	GS 210, 225 or 230	3-4
LASC	Lab Science (NSP*)	3-4
LASC	Distribution Elective (HBS*)	3
LASC	Distribution Elective (DAC*)	3
	Semester Subtotal	**15-18**
Comments		

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
GE 315	Research Methods	3
GS	ESS Elective	3
LASC	Distribution Elective (QR*)	3
LASC	Distribution Elective (WAC*)	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Semester Six		
Course No.	**Course Name**	**Credits**
GS	ESS Elective	3
GS	ESS Elective	3
LASC	Distribution Elective (NSP*)	3
LASC	Distribution Elective (QLAC*)	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments		

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
GS	ESS Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Semester Eight		
Course No.	**Course Name**	**Credits**
GE/GS 400	Senior Seminar	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments		

TOTAL CREDITS= 122-125

Note: The sequence of LASC courses marked with * is a suggestion but serves as a reminder that LASC designated courses must be taken to satisfy the LASC requirements.

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices.

Requirements for the Concentration in Environmental Studies:
In addition to the six core courses, students will complete:

Required Courses:
GE 258 Global Environmental Change 3
Two courses in Physical Geography or
GIS (200-400 level) 6

Three of the following: 9
GE 240 Energy Conservation
GS 240 Coastal Environments
GS 285 Sustainable Communities
GE 307 American Public Lands: Environmental Issues
GE 308 Environment and Development
GE 312 Sustainable Food Systems
GE 341 Fundamentals of Renewable Energy or GE 342 Sustainable Housing
GE/GS 470 Selected Topics (with approval)

One of the following:	4
GE/GS 460 Geography Internship	
GE/GS 410 Independent Study in Geography	
GE/GS 450 Readings and Directed Research	
Concentration Total	**22 credits**
Major Total	**42 credits**

Department of Earth, Environment and Physics: Geography Environmental Studies Concentration Sample Timeline for Completion of Degree

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
LASC	First-Year Seminar	3
LASC	EN 101 English Composition I	3
LASC	Math course	3
GE 102	Human Geography	3
GS 101	Physical Geography	3
	Semester Subtotal	**15**

Semester Two		
Course No.	**Course Name**	**Credits**
LASC	EN 102 English Composition II	3
LASC	Constitutions course	3
LASC	Distribution Elective (TLC*)	3
LASC	Distribution Elective (GP*)	3
GS 140	Physical Geology	4
	Semester Subtotal	**16**
Comments		

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
GS 216	Geographic Information Systems I	4
GS	Physical or GIS Elective	3
LASC	Distribution Elective (HBS)	3
LASC	Distribution Elective (ICW)	3
LASC	Distribution Elective (CA)	3
	Semester Subtotal	**16**

Semester Four		
Course No.	**Course Name**	**Credits**
GE 258	Global Environmental Change	3
GS	Physical or GIS Elective	3
LASC	Lab Science	3-4
LASC	Distribution Elective (USW*)	3
LASC	Distribution Elective (DAC*)	3
	Semester Subtotal	**15-16**
Comments		

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
GE 315	Research Methods	3
GE	Environmental Elective	3
LASC	Distribution Elective (QR*)	3
LASC	Distribution Elective (WAC*)	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Semester Six		
Course No.	**Course Name**	**Credits**
GE	Environmental Elective	3
GE	Environmental Elective	3
LASC	Distribution Elective (NSP*)	3
LASC	Distribution Elective (QLAC*)	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments		

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
GE/GS	410, 450 or 460	4
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**16**

Semester Eight		
Course No.	**Course Name**	**Credits**
GE/GS 400	Senior Seminar	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments		

TOTAL CREDITS= 123-124

Note: The sequence of LASC courses marked with * is a suggestion but serves as a reminder that LASC designated courses must be taken to satisfy the LASC requirements.

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices.

Requirements for the Concentration in Geographic Information Systems (GIS)
In addition to the six core courses, students will complete:

Prerequisites:
To be taken by the time the student has accumulated 21 credits in the major:
CS 135 Programming for Non-CS Majors
MA 150 Statistics I

Required Courses:

GS 218	Remote Sensing	3
GS 318	GIS II	3

Three Additional Courses 9
Three 200-400 level courses in either physical or human Geography. Students are encouraged to focus on one area. Regional courses are not appropriate.

One of the following: 3

GS/GE 410	Independent Study	
GS/GE 450	Readings/Directed Research	
GS/GE 460	Internship	
	Concentration Total	**18 credits**
	Major Total	**38 credits**

Department of Earth, Environment and Physics: Geography—GIS Concentration
Sample Timeline for Completion of Degree

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
LASC	First-Year Seminar	3
LASC	EN 101 English Composition I	3
LASC	MA 150 Statistics	3
GE 102	Human Geography	3
GS 101	Physical Geography	3
	Semester Subtotal	**15**

Semester Two		
Course No.	**Course Name**	**Credits**
LASC	EN 102 English Composition II	3
LASC	Constitutions course	3
LASC	Distribution Elective (TLC*)	3
GE 216	Geographic Information Systems	4
GS 140	Physical Geology	4
	Semester Subtotal	**17**
Comments		

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
GS 218	Remote Sensing	3
LASC	CS 135 Programming for Non-CS Majors	3
LASC	Lab Science	3-4
LASC	Distribution Elective (CA*)	3
LASC	Distribution Elective (HBS*)	3
	Semester Subtotal	**15-16**

Semester Four		
Course No.	**Course Name**	**Credits**
GS 318	Geographic Information Systems II	3
GS/GE	Elective	3
LASC	Distribution Elective (ICW*)	3
LASC	Distribution Elective (GP*)	3
LASC	Distribution Elective (USW*)	3
	Semester Subtotal	**15**
Comments		

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
GE 315	Research Methods	3
GS/GE	Elective	3
LASC	Distribution Elective (NSP*)	3
LASC	Distribution Elective (WAC)	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Semester Six		
Course No.	**Course Name**	**Credits**
GS/GE	Elective	3
LASC	Distribution Elective (DAC)	3
LASC	Distribution Elective (QLAC)	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments		

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
GE/GS	410, 450 or 460	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Semester Eight		
Course No.	**Course Name**	**Credits**
GE/GS 400	Senior Seminar	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments		

TOTAL CREDITS= 122-123

Note: The sequence of LASC courses marked with * is a suggestion but serves as a reminder that LASC designated courses must be taken to satisfy the LASC requirements.

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices.

Requirements for the Geography Minor
Students will complete 19 credits including:

GS 101	Physical Geography	3
GE 102	Human Geography	3
GS 216	Geographic Information Systems I	4

Three electives, 200 level or above, one each in physical and human geography and one in any category.

Geography Courses

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

GE 102 Human Geography

LASC—Global Perspectives; Human Behavior and Social Processes

Introduction to human geography, emphasizing globalization, human-environment relations and spatial patterns of population, development, economics, politics, urbanization and culture.
Offered every year. 3 credits.

GE 110 World Regional Geography I

LASC—Global Perspectives; Human Behavior and Social Processes

Analysis of the physical, cultural and economic regions of Eurasia.
Offered every year. 3 credits.

GE 111 World Regional Geography II

LASC—Global Perspectives; Human Behavior and Social Processes

Analysis of the physical, cultural and economic regions of Africa, Oceania and the Americas.
Offered every year. 3 credits.

GE 130 Introduction to Energy Studies

Foundation concepts in energy studies. Overview of environmental and societal implications of energy systems – past, present and future.
Offered every year. 3 credits.

GE 193 Special Topics in Geography or Earth Science for First-Year Students

All "193" courses are approved for LASC but may vary by section. See current course listing for specific LASC area approval.

Introductory level course covering topics of special interest to first-year students. Offered only as a First-Year Seminar.
Offered every year. 3 credits.

GE 195 Special Topics

Introductory course to be offered on a trial basis. Topic to be announced in advance
1-6 credits.

GE 210 Geography of North America

Prerequisite: ONE of the following: GE/GL 102, GE/GL 111, HI 111, HI 112, SO 100, UR 101 or permission of instructor

Analysis of the physical and human geography of North America.
Offered every 3 years. 3 credits.

GE 240 Energy Conservation

Concepts, technologies and policies for energy conservation. Inefficiencies of current systems; technical and social changes for energy efficiency.
Offered every year. 3 credits

GE 250 Urban Geography

LASC—Human Behavior and Social Processes

Prerequisite: GE/GL 102 or UR 101 or permission of instructor

World urbanization; location and central place concepts; economy of cities; land use patterns; urban environmental problems.
Offered every year. 3 credits.

GE 255 Geography of Africa

Prerequisite: ONE of the following: GE/GL 102, GE/GL 111, GL 150, SO 100, SO 110, UR 101 or permission of instructor

Analysis of the physical and human geography of Africa.
Offered every year. 3 credits.

GE 258 Global Environmental Change

Prerequisite: ONE of the following: GE/GL 102, GS 101, GL 150, NS 150, UR 101, CH 106 or permission of instructor

Introduction to the science, political economy and ethics of global environmental change.
Offered every year. 3 credits.

GE 285 Sustainable Communities

LASC—Human Behavior and Social Processes; United States and Its Role in the World

Prerequisite: ONE of the following: GE/GL 102, GL 150, EC 110, EC 120 or permission of instructor

Exploration of changes in U.S. and global economic landscape, 1970 to present. Approaches to sustainable economic development.
Offered every year. 3 credits.

GE 299 Special Topics

Prerequisite: Permission of instructor

Intermediate level course to be offered on a trial basis. Topic to be announced in advance.
1-6 credits.

GE 307 American Public Lands: Environmental Issues

Prerequisite: GE 258 or permission of instructor

Exploration of environmental management issues on U.S. public lands such as national parks, national forests, BLM lands.
Offered every 3 years. 3 credits.

GE 308 Environment and Development

Prerequisite: GE 258 or permission of instructor

The global ecology of rich and poor. Environmental implications of poverty, economic development, mass consumption, globalization and demographic change.
Offered every 3 years. 3 credits.

GE 312 Sustainable Food Systems

Prerequisite: GE 102 and any 200 level GE, GS, SO or UR course or permission of instructor

Overview of the structure, evolution, costs and benefits of the global food system. Exploration of local and global alternatives.
Offered every 3 years. 3 credits.

GE 315 Geographic Research Methods

Prerequisites: GE 102, GS 101, GS 140, GS 216

Overview of the research process; research design in human, physical and environmental geography; quantitative, qualitative and cartographic methods.
Offered every year. 3 credits.

GE 341 Fundamentals of Renewable Energy

Prerequisite: GE 130 or GE 240 or permission of instructor

Analysis of renewable energy concepts, policy and politics. Technologies and methods for renewable energy capture, storage and distribution.
Offered every year. 3 credits

GE 342 Sustainable Housing

Prerequisite: GE 130 or GE 240 or permission of instructor

Principles of green design with an emphasis on building construction. Material and energy flows, choice of materials, designing for sustainability.
Offered every year. 3 credits

GE 359/UR 360 Environmental Systems and Public Policy

Prerequisite: Environmental Studies concentration status

Examination of urban ecosystems, focusing on land uses designed to effectively utilize water, open space and other natural resources.
Offered every 2 years. 3 credits.

GE 400 Geography Seminar

Prerequisites: GE 102, GS 101, GS 140, GS 216, GE 315 and senior standing (or permission of department chair)

Capstone course for geography majors. Students conduct independent research projects and present their findings.
Offered every year. 3 credits.

GE 410 Independent Study in Geography

Opportunity for advanced students to pursue a topic of special interest involving extensive reading, experimentation, and research.
1-6 credits.

GE 450 Readings and Directed Research

Prerequisites: All department requirements for major fulfilled.

Directed study on selected topics; open to senior majors.
3 credits.

GE 460 Geography Internship

Prerequisites: All department requirements for major fulfilled.

Students assigned to various government and private agencies under joint supervision of agency and faculty.
1-6 credits.

GE 470 Selected Topics in Geography

Topic or subject to be announced in advance; topic to be relevant to student needs and interests and subject to availability of professor.
1-6 credits.

Earth Science Courses

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

GS 101 Physical Geography

LASC—Natural Systems and Processes

Introduction to earth systems and processes. Characteristics and distribution of landforms, climates, water, soils, plants and animals.

Offered every year. 3 credits.

GS 110 Meteorology

LASC—Natural Systems and Processes; Quantitative Literacy Across the Curriculum

Weather elements, frontal storms, air mass characteristics, winds, temperature, precipitation, and pressure patterns throughout the world; weather instruments, forecasting.
Offered every year. 3 credits.

GS 140 Physical Geology

LASC—Natural Systems and Processes (Laboratory Course); Quantitative Literacy Across the Curriculum

Introduction to geological science: rocks and minerals, internal and external geologic processes, topographic map and air photo analysis, local field study. Three hours lecture and one two-hour laboratory.
Offered every year. 4 credits.

GS 150 Humans and the Cold Environment

Winter intersession. Examines earth's cold regions, including physical geography, cryosphere's role in earth systems, human adaptations. Includes outdoor activity.
Offered every year. 3 credits.

GS 160 Maps and Map Interpretation

LASC—Natural Systems and Processes; Quantitative Literacy Across the Curriculum

Prerequisite: Accuplacer code 3 or above

Introduction to map reading and interpretation and the history and basic principles of cartography.

Offered every other year. 3 credits.

GS 193 Special Topics in Earth Science for First-Year Students

All "193" courses are approved for LASC but may vary by section. See current course listing for specific LASC area approval.

Introductory level course covering topics of special interest to first-year students. Offered only as a First-Year Seminar.
Offered every year. 3 credits.

GS 195 Special Topics

Introductory course to be offered on a trial basis. Topic to be announced in advance
1-6 credits.

GS 210 Geomorphology

Prerequisite: GS 101 or GS 140

The study of landforms and the processes that form them. Labs focus on interpretation of maps and aerial photographs. Three hours lecture and one two-hour laboratory.
Offered every year. 4 credits.

GS 216 Geographic Information Systems I

Introduction to the digital production of maps using *ArcGIS* software.
Offered every year. 4 credits.

GS 218 Introduction to Remote Sensing

Prerequisite: ONE of the following: GS 101 or GS 140, NS 150, BI 101, BI 140 or permission of instructor

Introduction to the use and analysis of remotely sensed images such as aerial photographs and satellite imagery.
Offered every year. 3 credits.

GS 220 Earth History

Prerequisite: GS 140

Historical evolution of the earth, its surface features, and life forms through geologic time.
Offered every 3 years. 3 credits.

GS 225 Oceanography

Prerequisite: ONE of the following: GS 101 or GS 140, GS 110, NS 150 or permission of instructor

LASC: Quantitative Literacy Across the Curriculum

The principles of physical, chemical, biological, and geological oceanography.
Offered every year. 3 credits.

GS 230 Biogeography

Prerequisite: ONE of the following: GS 101, BI 101 or BI 140 or permission of instructor

The distribution patterns of plants and animals, processes affecting this distribution, and how these patterns change in space and time.
Offered every year. 3 credits.

GS 235 Contemporary Climate Change

Prerequisite: ONE of the following: GS 101, GS 110, NS 150, CH 106 or permission of instructor

The global climate system, factors influencing climate, recent climate change and the role of human activity.
Offered every year. 3 credits.

GS 240 Coastal Environments

Prerequisite: GS 101 or GS 140 or permission of instructor

Summer session course examining the physical geography of coastal environments including human impacts. Includes field trips.
Offered every year. 3 credits.

GS 245 Planetary Geology

Prerequisites: GS 140 or PY 101 or permission of instructor
Solar system formation and evolution with emphasis on planetary interiors and surface features.
Offered every 3 years. 3 credits.

GS 250 Hydrology

Prerequisite: ONE of the following: GS 101, GS 140, GS 110, NS 150 or permission of instructor

Hydrologic processes, their estimation and measurement. Includes precipitation, evaporation, runoff, groundwater and water resources management.
Offered every other year. 3 credits.

GS 260 Introduction to Soil Science

Prerequisite: GS 101 or GS 140 or permission of instructor

The study of the formation, processes, classification and composition of soils with emphasis on environmental applications, including wetland delineation.
Offered every other year. 3 credits.

GS 270 The Sedimentary Record

Prerequisite: GS 140 and either GS 101 or GS 110

Theoretical, laboratory, and field investigations of modern sedimentary processes; depositional environments; the sedimentary record of earth history; principles of stratigraphy. Three hours lecture and one three-hour lab..
Offered every other year. 4 credits.

GS 299 Special Topics

Prerequisite: Permission of instructor

Intermediate level course to be offered on a trial basis. Topic to be announced in advance.
1-6 credits.

GS 318 Geographic Information Systems II

Prerequisite: GS 216

Advanced production of digital maps using a GIS vector oriented software.
Offered every other year. 3 credits

GS 335 Hydrogeology

Prerequisites: GS 140 or GS 250

Underground water and its movement. Aquifer identification and test; wells, contamination and remediation, ground water as a geologic agent.
Offered every other year. 3 credits.

GS 365 Climate Change over Earth History

Prerequisite: GS 140 or GS 235 or permission of instructor

A record of change climate on Earth; methods used to reconstruct past climates; relevance of past changes to the current climate.
Offered every other year. 3 credits.

GS 370 Lakes and Environmental Change

LASC-Writing Across the Curriculum

Prerequisites: GS 140 and at least one earth science course 200 level or above, or permission of instructor; EN 102
Modern physical, biogeochemical, and sedimentary processes in lakes. Lake sediment as archives of past climate and environmental change. Includes fieldwork. Two hour lecture and one two-hour lab.

Offered every other year. 4 credits.

GS 400 Geography Seminar

Prerequisites: GE 102, GS 101, GS 216, GS 140, GE 315 and senior standing (or permission of department chair)

Capstone course for geography majors. Students conduct independent research projects and present their findings.
Offered every year. 3 credits.

GS 410 Independent Study in Geography

Opportunity for advanced students to pursue a topic of special interest involving extensive reading, experimentation, and research.
1-6 credits.

GS 450 Readings and Directed Research

Prerequisites: All department requirements for major fulfilled.

Directed study on selected topics; open to senior majors.
3 credits.

GS 460 Geography Internship

Prerequisites: All department requirements for major fulfilled.

Students assigned to various government and private agencies under joint supervision of agency and faculty.
1-6 credits.

GS 470 Selected Topics in Geography

Topic or subject to be announced in advance; topic to be relevant to student needs and interests and subject to availability of professor.
1-6 credits.

Health Sciences
Department of Health Sciences

Faculty

Lynn Bloomberg, Associate Professor (1996), Department Chair
B.A., University of Hawaii; M.Ed., University of Texas; M.P.H., Dr.P.H., University of California at Berkeley

Mariana Cecilia Calle, Assistant Professor (2012)
B.S., University of Buenos Aires, Argentina; M.S., Ph.D., University of Connecticut

Helena Brown Semerjian, Associate Professor (1966)
B.S., M.Ed., Fitchburg State College; M.Ed., Boston University

Shelley White, Assistant Professor (2013)
B.S., M.P.H., Boston University; Ph.D., Boston College

The Department of Health Sciences offers the following programs in Health and Physical Education: Bachelor of Science in Public Health or a Bachelor of Science in Health Education which, when combined with an optional minor in Education, leads to initial licensure certification. Department courses provide basic knowledge and basic practice skills to prepare students interested in pursuing careers in a variety of health service settings, teaching, and as preparation for graduate programs in health and health-related professions. General distribution, or Liberal Arts and Sciences (LASC) requirements provide a broad cultural background in the humanities, in the behavioral and social sciences, and in the natural sciences. Membership in a national health honor society, Eta Sigma Gamma, is made available to students who maintain a minimum 3.0 average.

For all Health courses in the majors, minors, and the concentration, a minimum grade of 2.0 is required and courses may not be taken pass/fail. Courses may be repeated.

Majors and Minors in Heath Science may not be taken by the same student.

Prerequisite courses must average an overall minimum of 2.0.

Next Step is a Community Health program for non-traditional students with health-related work experience. The program offers evening and weekend courses and an opportunity to gain elective credit in the major for writing a portfolio of prior learning.

Graduates are eligible to take the Certified Health Education Specialist exam (CHES) conferred by the National Commission for Health Education Credentialling (NCHEC).

Public Health Major

The goal of the public health program is to prepare health practitioners in the public health disciplines of wellness, health promotion and holistic disease prevention; as well as in community health services through cooperative, multi-disciplinary experiences. Coursework focuses on developing competency in assessing individual/community health needs, and planning, implementing, and evaluating community health programs through academic work and field work.

Major Requirements: **32 Credits**

HC 201	Introduction to Public Health	3 Credits
HC 202	Introduction to Global Health (DAC)	3 Credits
HC 203	Introduction to Epidemiology (QLAC) (NS)	3 Credits
HC 228	Health Ethics	3 Credits
HE 390	Environmental Health	3 Credits
HC 415	Community Health Planning and Promotion	3 Credits
HC 425	Research Seminar	3 Credits
HC 450	Practicum (CAP) 9 courses + HC 415	3 Credits
HC 455	Practicum Seminar	3 Credits

Electives (Total: 5 courses between Major and Interdisciplinary Options)

Major Electives: 3-6 Credits (1 or 2 courses) **15 Credits**

HE 120	Health and Nutrition	3 Credits
HC 220	Health Policy	3 Credits
HC 234	Multiculturalism and Health	3 Credits
HC 350	Group Process	3 Credits
HE 350	Community Health Education	3 Credits
HC 403	Department Workshop in Community Health	3 Credits
HE 450	Independent Study	3 Credits

Interdisciplinary Electives: 9-13 credits (3-4 courses)

See Health Sciences Department for list of approved courses.

Required Ancillary Courses (17-20 Credits):

BI 161	Anatomy & Physiology I	4 Credits
BI 162	Anatomy & Physiology II (NSP)	4 Credits
BI 206	Medical Microbiology (NSP)	4 Credits
CH 112	Survey of Chemistry	4 Credits
PH 275	Psychological Statistics	4 Credits
	or MA 150 (MA/QR)	3 Credits

Department of Health Sciences: Public Health Sample Timeline for Completion of Degree

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
LASC (FYS)	First-Year Seminar	3
LASC (WR) EN 101	English Composition I	3
HC 201	Introduction to Public Health (HE 100)	3
HE 100	Personal Health (ICW)	3
LASC (MA/QR)	MA Course - Accuplacer & Dev. Math	3
	Semester Subtotal	**15**

Semester Two		
Course No.	**Course Name**	**Credits**
LASC (WR) EN 102	English Composition II	3
LASC (HBS) PS 101	General PSychology	3
BI 161	Anatomy and Physiology I	4
HC 202 (DAC)	Introduction to Global Health	3
LASC (CON)	Distribution Course (Constitutions)	3
	Semester Subtotal	**16**

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
LASC (QR)	Math Course	3
BI 162 (NS LAB)	Anatomy and Physiology II (NS)	4
HE/HC/ Interdis	Major/Interdisciplinary Elective	3
LASC (GP)	Distribution Elective (CA)	3
LASC (USW)	Distribution Course	3
	Semester Subtotal	**16**

Semester Four		
Course No.	**Course Name**	**Credits**
HC 228/PH 131	Health Ethics/Medical Ethics	3
MA 150/PS 275	Statistics Course	3
HE/HC/etc.	Major Interdiscipiinary Elective	3
LASC (TLC)	Distribution Course	3
HE/HC/Etc.	Major Interdisciplinary Elective	3
	Semester Subtotal	**15**

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
HE 390	Environmental Health	3
HE/HC/etc.	Major or Interdisciplinary Elective	3
BI 206	Medical Microbiology	4
	Distribution Elective	3
LASC (CA)	Distribution Elective	3
	Semester Subtotal	**16**

Semester Six		
Course No.	**Course Name**	**Credits**
HC 202 (QLAC)	Intro to Epidemiology	3
HE/HC/etc.	Major/Interdisciplinary Elective	3
LASC (NS)	GS, PY	3
LASC (USW)	Distribution Elective	3
CH 112	Survey of Chemistry	4
	Semester Subtotal	**16**

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
HC 415	Program Planning (201, 202, 203, 228, 390)	3
HC 425	Research (415)	3
LASC	Distribution Elective	3
SELECT	Distribution Elective	3
SELECT	Distribution Elective	3
	Semester Subtotal	**15**

Semester Eight		
Course No.	**Course Name**	**Credits**
HC 450 (CAP/WAC)	Practicum (co-requisite HC 455)	3
HC 455	Practicum Seminar	3
SELECT	Distribution Elective	3
SELECT	Distribution Elective	3
SELECT	Distribution Elective	3
	Semester Subtotal	**15**
Comments		

TOTAL CREDITS= 124-125

Note: LASC Distribution Electives, Public Health and Heath Education required and elective courses do not have to follow this order. However, it is recommended that students take Personal Health first, then two Health Education or Public Health courses each semester.

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

Health Education Major

The goal of the health education program is to prepare graduates to be critical and creative thinkers as well as lifelong learners in the dynamic field of health education. Coursework and fieldwork focus on developing the knowledge, understandings, competencies, and experiences required of professionals teaching health education in a variety of community settings. Worcester State University also offers Initial Licensure for health education programs in middle and secondary education (grades 5-12); the Massachusetts Educator Licensured (MTEL) must be passed for licensure. All students in the Health Education major and Education minor will need an advisor from each of these departments.

Major Requirements: 39 credits

HE	100	Personal Health
HE	120	Health and Nutrition
HE	200	Consumer Health
HE	220	Mental Health Education
HE	230	Human Sexuality and Sex Education
HE	275	Fitness for Life
HE	285	Drugs and Society
HE	390	Environmental Health
HC	415	Community Health Planning and Promotion
HE	440	Practicum in Health
HE	445	Practicum Seminar

First Aid/CPR: Red Cross or American Heart Association non-credit certification, or 1-3 credit course

Major Electives (6-9 credits) without Education minor

(n.b. Evening and summer courses may be necessary)

With Education minor (in lieu of Health electives and Health Practicum)

PS	312	Psychology of Adolescence (pre-req: PS 101 and PS 210)
ED	149	Introduction to Teaching Profession
ED	250	Educational Psychology
ED	251	Foundations of Education
ED	270	Multicultural Education
ED	351/2	Principles and Evaluation
ED	353/4	Effective Teaching
ED	370/1	Contemporary Issues
ED	424	Seminar
ED	480/485	Practicum in Teaching (replaces HE 440: Practicum in Health)

Required Ancillary Courses for the Health Education major: 20 credits

The following courses combined must average C or better; they may be taken concurrently with major course requirements:

BI	161	Human Anatomy and Physiology I
BI	162	Human Anatomy and Physiology II (NSP)
PS	101	General Psychology and PS Elective (Education Minors PS 101, PS 210, and PS 312)
SO	100	Introduction to Sociology
SO	275	PS 275 Psychological Statistics (QLAC/QR) or MA 150 Statistic (MA/QR)

Department of Health Sciences: Health Education Sample Timeline for Completion of Degree

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
LASC	First-Year Seminar	3
EN 101	English Composition I (LASC/Writing)	3
HE 100	Personal Health	3
SO 10-	Intro to Sociology	3
PS 101	General Psychology (HBS)	3
	Semester Subtotal	**15**

Semester Two		
Course No.	**Course Name**	**Credits**
EN 102	English Composition II (LASC/Writing)	3
MA 150	Statistics (QR)	3
PS 275	Psychology Elective or PS 275 Psychological Statistics (QLAC)	3/4
BI 161	Anatomy/Physiology I	4
	Distribution Elective (CA)	3
	Semester Subtotal	**17**

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
HE 200	Consumer Health	3
HE 220	Mental Health Education	3
BI 162	Anatomy/Physiology II (NS)	4
LASC	Distribution Elective (GP)	3
LASC	Distribution Elective (QLAC, if needed)	3
	Semester Subtotal	**16**

Semester Four		
Course No.	**Course Name**	**Credits**
HE 120	Health and Nutrition	3
HE 230	Human Sexuality/Sex Education	3
HI/PO	U.S. Constitutions	3
LASC	Distribution Elective (TLC)	3
LASC	Distribution Elective (DAC)	3
	Semester Subtotal	**15**
Comments		

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
HE 275	Fitness for Life	3
HE 285	Drugs and Society	3
HE 390	Environmental Health	3
LASC	Distribution Elective (NSP)	3
LASC	Distribution Elective (QR)	3
	Semester Subtotal	**15**

Semester Six		
Course No.	**Course Name**	**Credits**
HC/HE	Elective in Major #1	3
HC 415	Community Health Planning and Promotion	3
LASC	Distribution Elective (ICW)	3
LASC	Distribution Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments		

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
HC/HE	Elective in Major #2	3
HC/HE	Elective in Major #3	3
LASC	General Elective	3
SELECT	Distribution Elective (USW)	3
LASC	Distribution Elective (Constitutions)	3
	Semester Subtotal	**15**

Semester Eight		
Course No.	**Course Name**	**Credits**
HE 440	Practicum in Health co-requisite Practicum Seminar (CAP/WAC)	3
HE 445	Practicum Seminar (CAP/WAC)	3
LASC	Distribution Elective (NSP/QR)	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**18**
Comments		

TOTAL CREDITS= 122-125

Note: LASC Distribution Electives and Health Education required and elective courses do not have to follow this order. However, it is recommended that students take Personal Health first, then two Health Education or Public Health courses each semester.

Once LASC requirements are satisfied, students may select general electives. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

Health Minors

Note: Minors in Health Education cannot be taken wih a major in this discipline.

Health Education Minor: 18 credits

Requirements:

HC 415	Community Health Planning and Promotion	3 credits
Electives:	Health Education and/or Public Health courses	15 credits

Public Health Minor: 21 credits

The minor is designed to develop a more in-depth understanding of the core areas and competencies of the public health discipline by introducing students to various determinants affecting health from global, national, community, and local perspectives.

Requirements:

HC 201	Introduction to Public Health	3 credits
HC 202	Introduction to Global Health (DAC)	3 credits
HC 203	Introduction to Epidemiology (QLAC)	3 credits
HC 415	Community Health Planning and Promotion	3 credits
Electives:	from Interdisciplinary and Health courses	9 credits

Health Fitness Minor: 18 credits plus 7 prerequisite credits for PE 210 Foundations of Strength and Conditioning (BI 161 Anatomy and Physiology, 4 credits, and either HE 170 Humans in Motion, 3 credits, or BI 271 Basic Kinesiology, 3 credits).

The minor encompasses both the knowledge and skills required in the growing field of Health Fitness. Applications focus on improving health and fitness at both the individual and population levels.

A minimum grade of 2.0 must be earned in required and elective courses. Prerequisites must average a minimum of 2.0

Requirements:

HE	120	Health and Nutrition	3 credits
PE	210	Foundations of Strength and Conditioning	3 credits
PE	220	Survey of Athletic Training	3 credits

Electives 9 credits from:

PE/HE	150	Health and Physical Education for the Teacher	3 credits
PE	190	Sport and Society	3 credits
PE	240	Athletic Programs	3 credits
PE/HE	260	First Aid: Advanced Theory & Skills	3 credits
PE/HE	275	Fitness for Life	3 credits
PE/HE	280	Stress Management	3 credits
HE	285	Drugs and Society	3 credits
PE	420	Practicum in Health Fitness	3 credits

Health Concentration

Interdisciplinary Concentration in Public Health and Social Justice: 15 credits
The Concentration is designed to develop an educated citizenry who will examine the determinants of health from global, national, community and local perspectives.

Requirements:

HC	201	Introduction to Public Health	3 credits
HC	202	Introduction to Global Health	3 credits
HC	203	Introduction to Epidemiology	3 credits

Electives: 6 credits from approved interdisciplinary list.

Public Health - Pre-Nursing Program

The Public Health - Pre-Nursing Program is a dual-degree based on a formal affiliation agreement that admits a limited number of students into an articulated program that begins with 83 credis at WSU in the Public Healh/Pre-Nursing program and ends with the accelerated Bachelor of Nursing program on the Massachusetts College of Pharmacy and Health Science University ("MCPHSU") Worcester or Manchester, NH campus. At the end of the appropriate 40 credits (of the 63 required) at MCPHSU, the student transfers those credits back to WSU, and earns a Bachelor of Science in Public Health. The student then completes the additional number of appropriate credits (23) at MCPHSU to earn the B.S. in Nursing. Students should see the advisor in the Health Sciences department assigned to the program.

The Bachelor of Science in Public Health requires the following 83 credits at WSU followed by the 63 credits in Nursing which will be taken at the MCPHSU campus in either Worcester or Manchester, NH.

Public Health - Pre-Nursing Program

Requirements Completed at WSU (83)

YEAR ONE

Fall		
Course No.	**Course Name**	**Credits**
FYS	FIrst Year Seminar	3
EN 101	English Composition (WR)	3
HE 120	Health & Nutrition	3
HI 111/112	US History (CON)	3
PS 101	General Psychology (HSB)	3
	Semester Subtotal	**15**

Spring		
Course No.	**Course Name**	**Credits**
BI 161	Human Anatomy and Physiology I	4
CH 112	Survey of Chemistry (NSP)	4
EN 102	English Composition II (WR)	3
HE 100	Personal Health (ICW major pre-req)	3
	Semester Subtotal	**14**

Summer		
Course No.	**Course Name**	**Credits**
PS 210	Developmental Psychology (HBS)	**3**
SO 100	Introduction to Sociology	3
MA	Any Math Course (within first 60 credits)	3
	Semester Subtotal	**9**

YEAR TWO

Fall		
Course No.	**Course Name**	**Credits**
BI 162	Human Anatomy & Physiology II (NSP)	4
HC 206	Medical Microbiology	3
HC 202	Introduction to Global Health	3
HE 415	Community Health Planning and Promotion	3
PS 275	Psychological Statistics	4
	Semester Subtotal	**18**

YEAR TWO

Spring		
Course No.	**Course Name**	**Credits**
HC 201	Introduction to Public Health	3
HC 203	Introduction to Epidemiology	3
HC 425	Research Seminar (CAP)	3
HE 390	Environmental Health	3
LASC	Requirement (CA, GP, TLC, USW)	6
	Semester Subtotal	18

Summer		
Course No.	**Course Name**	**Credits**
HE 210	Women's Health	3
LASC	LASC Requirement (CA, GP, TLC, USW)	6
	Semester Subtotal	9

Students in Track I will complete the above courses during summer sessions at WSU.
Students in Track II will complete the above courses during a third Fall semester at WSU.

Requirements Completed at MCPHSU (63)

Fall or Spring

Course No.	Course Name	Credits
NUR 205	Nursing History, Knowledge & Narrative	3
NUR 208	Essential Concepts of Nursing	3
NUR 215/215L	Nursing Skills & Technologies	4
NUR 226	Pathophysiology & Pharmacology	6
	Semester Subtotal	**18**

Spring or Summer

Course No.	Course Name	Credits
NUR 325/335L	Provider of Care I: Adult & Elder Health	8
NUR 350	Scholarly Inquiry	3
	Semester Subtotal	**11**

Summer or Fall

Course No.	Course Name	Credits
NUR 330	Nursing History, Knowledge & Narrative	3
NUR 335	Essential Concepts of Nursing	6
NUR 345	Nursing Skills & Technologies	6
	Semester Subtotal	**15**

Fall or Spring

Course No.	Course Name	Credits
NUR 425	Provider of Care IV: Community/Home Health	8
NUR 445	Provider of Care V: Coordinator of Care	6
NUR 450	Member of a Profession: Capstone Project	4
	Semester Subtotal	**18**

WSU/MCPHSU Public Health - Pre-Nursing Program Requirements

A 2.5 cumulative GPA is required and a minimum grade of "C" in major courses and in BI 161, BI 162, BI 206, CH 112, PS 210 and either PS 275 or MA 150. Ancillary major courses cannot be taken Pass/Fail. Transfer courses require prior written approval of MCPHSU.

An application form for the Intent to Transfer/Enroll at MCPHSU must be submitted by May 1 for Fall enrollment and by September 1 for Spring enrollment and must include an official WSU transcript.

Admission to the accelerated BSN program is also contingent upon a satisfactory pre-admission interview conducted by MCPHSU at the campus to which the student intends to transfer and is subject to availability of openings in the program.

Students for whom english is not their first language must also submit a TOEFL score, which must be at least 213 (or a minimum of 9 on the IBT).

The MCPHSU Worcester/Manchester Admissions Committee retains the right to make the final decision on each student's transfer application.

Health Education Courses

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

HE 100 Personal Health

LASC—Individual and Community Well-Being [for non-Health Education majors only]

Physical, mental, emotional, social, psychological, environmental and spiritual aspects of well-being.
Offered every year. 3 credits.

HE 120 Health and Nutrition

LASC—Individual and Community Well-Being

Nutritional needs, weight control, healthy diets, myths, and nutritional aids to better health.
Offered every year. 3 credits.

HE/PE 140 Creative Arts and Health

LASC—Creative Arts

An experiential and didactic introduction to making connections between the arts process, product and health.
Offered every year. 3 credits.

HE/PE 150 Health and Physical Education for the Teacher

The planning, development, implementation and evaluation of comprehensive health education programs
Offered every year. 3 credits.

HE 170 Humans in Motion

Concepts of the human neuro-musculoskeletal system which provide function and health across the life span under normal and stressful conditions.
Offered every 2 years. 3 credits

HE 193 Special Topics in Health Sciences for First-Year Students

All "193" courses are approved for LASC but may vary by section. See current course listing for specific LASC area approval.

Introductory level course covering topics of special interest to first-year students. Offered only as a First-Year Seminar.
Offered every year. 3 credits.

HE 200 Consumer Health

Current information and guidelines to reliable sources necessary to develop critical and informed consumers of health products and services.
Offered every year. 3 credits.

HE 210 Women's Health Issues

Interactive processes of politics, power and media's influences on research, public health policy and current health issues.
Offered every year. 3 credits.

HE 220 Mental Health Education

LASC - HBS, ICW
Prerequisites: HE 100
Examination of mental health as a variable: its creation and the obstacles to sound mental health and positive self-concept.
Offered every year. 3 credits.

HE 230 Human Sexuality and Sex Education

Prerequisites: HE 100
Focus on the need for and understanding of sex education, along with the process of implementing sexuality education, with emphasis on teacher preparation.
Offered every year. 3 credits.

HE 240 Perspectives on Writing & Learning from Experience I

Prerequisites: EN 102, by permission only

Students will identify and analyze significant prior work and life experiences in the their fields of study and complete the first half of a portfolio of prior learning, which articulates what has been learned and relates it to college level courses and competencies.
Offered every year. 3 credits.

HE 242 Perspectives on Writing & Learning from Experience II

Prerequisites: HE 240, by permission only

This course is a continuation of HE 240. Students will continue the identification, analysis, and articulation of prior work and life experience and complete the second half of their prior learning portfolios.
Offered every year. 3 credits.

HE/PE 260 First Aid: Advanced Theory and Skill

Common emergencies, cardiopulmonary resuscitation, auto extrication, and emergency childbirth. Opportunity for instructor rating.
Offered every 3 years. 3 credits.

HE/PE 275 Fitness for Life

Prerequisites: HE 120
Knowledge of health-related fitness components and their effect on total wellness; emphasis on developing personalized fitness program.
Offered every year. 3 credits.

HE/PE 280 Individualized Stress Management and Relaxation

Strategies and techniques for increasing stress resistance based on psychophysiological research.
Offered every year. 3 credits.

HE 320 Aging and Death

Prerequisite: HE 100

Health implications revealed as psychological and social surrounding the phenomena of aging and death.
Offered every 2 years. 3 credits.

HE 340 Health Counseling

Prerequisite: PS 110 or 111

A study of the counseling implications involved in health. Awareness of the counseling process and referral.
Offered every 3 years. 3 credits.

HE 350 Community Health Education

Prerequisite: HE 100

Application of core competencies of community health education with an introduction to theory and program planning. Examination of local health agencies.
Offered every year. 3 credits.

HE 370 Critical Issues in Health

Prerequisite: HE 100

An examination of contemporary issues in health that have legal, ethical, moral and professional practice implications.
Offered every 3 years. 3 credits.

HE 390 Environmental Health

Prerequisite: HE 100 or HC 201

Examination of the issues affecting the environment and their impact on individual and global health.
Offered every year. 3 credits.

HE 400 Special Topics

Current issues in Health.
Offered every year. 3 credits.

HE 415 Community Health Planning and Promotion

Prerequisite: minimum of 9 courses

Emphasis on community analysis: defining community's needs and assets and planning appropriate programs.

HE 440 Practicum in Health

LASC - Major Capstone
Co-requisite: HE 445

A field experience for health majors.
Offered every year. 3-6 credits.

HE 445 Practicum Seminar

Co-requisite: HE 440

This course is designed for reflection on the integration and application of the knowledge, skills, and competencies required of health education professionals.

HE 450 Independent Study in Health

Independent learning experiences designed and initiated by health majors.
Offered every year. 1-6 credits.

Public Health Courses

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

HC 201 Introduction to Public Health

This course is an overview and will focus on populations, prevention, and the evidence-based practice of public health
Offered every year. 3 credits

HC 202 Introduction to Global Health

LASC— Global Perspectives, Individual and Community Well-Being, Diversity Across the Curriculum

This course is an overview and will focus on the developing world from a population and prevention perspective

Offered every year. 3 credits

HC 203 Introduction to Epidemiology

LASC - Natural Systems and Processes, Quantitative Literacy Across the Curriculum, Individual and Community Well-Being

Basic epidemiologic concepts are covered and application of concepts to everyday problems; e.g., hazards in food supplies and risks associated with lifestyle.
Offered every year. 3 credits

HC 220 Health Policy

Prerequisite: HE 100
Examination of the process and factors that influence formulation, implementation and modification of health policy in the United States.
Offered every 3 years. 3 credits

HC 228 Health Ethics

Ethical issues in health including genetic research, euthanasia, medical intervention and reproductive technologies as well as professional ethics.
Offered every 3 years. 3 credits

HC 233 Health Care Systems

The health care system with emphasis on issues relating to unequal access to health services and current plans to make change.
Offered every 3 years. 3 credits

HC 234 Multiculturalism and Health

Examination of diverse ethnic/racial and cultural beliefs and practices affecting health and illness.
Offered every 2 years. 3 credits

HC 338 Peer Education Training

Prerequisite: HE 100

Emphasis on student development of practical skills to implement programming centered on peer education programs and focused on preventative health.
Offered every 3 years. 3 credits

HC 350 Group Process

Prerequisite: HE 100

A didactic and experiential examination of various theories of group dynamics and their application to the facilitation of health-related groups. Research paper.
Offered every year. 3 credits

HC 403 Department Workshop in Community Health

The subject mater of this course will be reflective of the changing issues within the field of community health.
Offered every year. 3 credits

HC 415 Community Health Planning and Promotion

Prerequisites: 7 courses from major requirements and major electives

Emphasis on community analysis; defining and verifying community health problems and establishing goals and objectives. Research paper.
Offered every year. 3 credits

HC 425 Research Seminar

Prerequisites: HC 228 or PH 131, HC 203, and one of the following statistics courses: MA 150, PS 275, SO 275

Students will be required to produce a proposal for a research study based on a community public health issue.
Offered every year. 3 credits

HC 450 Practicum in Community Health

LASC - Major Capstone, Writing Across the Curriculum

Prerequisites: 8 HE/HC courses; EN 102; Co-requisite: HC 455

Field experience in which students will select a community health speciality area and spend a semester pursuing their goal through participation. (See HE 440 Practicum in Health).
Offered every year. 3-6 credits

HC 455 Practicum Seminar

Co-requisite: HC 450

This course is designed for reflection and practice of integration and application of the knowledge, skills, and competencies required of Public Health professionals.

Mathematics
Department of Mathematics

Faculty

Richard Bisk, Professor (2001)
B.A., Drew University; M.S., University of New Hampshire; A.S.A., Society of Actuaries; Ph.D., Clark University

Ion Coiculescu, Assistant Professor (2014)
B.S., University of Bucharest Romania; M.A., University of New Mexico; Ph.D., University of North Texas

Mary S. Fowler, Professor (2004), Department Chair
B.A., New York University; M.S., Ph.D., Carnegie Mellon University

Maria G. Fung, Associate Professor (2008)
B.A., Clark University; M.S., Ph.D., Cornell University

Hy Ginsberg, Assistant Professor (2011)
B.S., SUNY Stony Brook; M.S., Ph.D., University of Vermont

Jason A. Hardin, Assistant Professor
B.A., University of Cincinnati; Ph.D., M.S., University of Nebraska–Lincoln

Craig A. Miller, Assistant Professor (2014)
B.S., Pennsylvania State University, Ph.D., M.S., University of Connecticut

Eileen B. Perez, Assistant Professor (2013), Developmental Mathematics Program Director (2008)
B.S., M.S., Union College; Ed.D., Nova Southeastern University

Susan L. Schmoyer, Assistant Professor (2009)
B.S., Randolph-Macon Woman's College; M.S., Virginia Tech, Ph.D., University of Maryland

Hansun T. To, Professor (2004)
B.A., Rosemont College; M.A., Ph.D., Temple University

Michael Winders, Associate Professor (2004)
B.S., M.S., Ph.D., University of Iowa

The Department prepares its students for advanced study and research as well as for careers in business, industry, government and teaching. Students are encouraged to seek the advice of their faculty advisor in the selection of a concentration and elective courses that will best prepare them for their career choices.

Mathematics is the language of science and also plays a key role in many of the social sciences. An understanding of mathematics provides a powerful approach to solving problems through organization, simplification, and abstraction. In today's job market, individuals with highly developed analytical and problem-solving skills are in great demand. Therefore, there are numerous career options for students who choose to major in mathematics.

The Mathematics Department offers two majors. One is a Mathematics Major with three possible concentrations: Traditional, Secondary Education and Statistics and Modeling. The other is Mathematics for Elementary Education: 1-6 which requires a student to also complete the Elementary Education Major.

Computer software is used in many courses. These programs include Maple, Geogebra, Sage, SPSS, Matlab, Geometer's Sketchpad, and DPGraph.

The Mathematics Major

Admission Requirements for the Mathematics Major: Rigorous high school coursework and strong SAT scores with above average grades in mathematics and computer science courses.

Requirements for a Major in Mathematics: Students must complete a core of six mathematics courses and one computer science class and in addition select one of three concentrations.

Core Courses: 24 credits

MA 200	Calculus I
MA 201	Calculus II
MA 240	Theory of Proof
MA 260	Linear Algebra
MA 310	Calculus III
CS 135	Programming for Non-CS Majors
MA 470	Capstone Experience

MA 200, MA 201 and MA 240 must be completed with grades of at least C- by the end of the sophomore year. A student may only retake any of these courses at most once to increase a grade below C-; and may retake at most two of these courses to increase a grade below C-.

Requirements for the Concentration in Traditional Mathematics: 18 credits

MA 320	Ordinary Differential Equations
MA 405	Abstract Algebra
MA 410	Real Analysis

Nine additional credits of mathematics at the MA 290-level or above, to be chosen in consultation with the academic advisor.

Department of Mathematics: Mathematics Major Traditional Concentration Sample Timeline for Completion of Degree

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
LASC	First-Year Seminar	3
EN 101	English Composition I	3
MA 200	Calculus I	4
CS 135	Programming for Non-CS Majors (QR)	3
LASC	Distribution Elective (NSP)	3
	Semester Subtotal	**16**

Semester Two		
Course No.	**Course Name**	**Credits**
EN 102	English Composition II	3
LASC	U.S. Constitution	3
MA 201	Calculus II	4
MA 240	Theory of Proof [1]	3
LASC	Distribution Elective(CA)	3
	Semester Subtotal	**16**
Comments	[1]DualMath/CS majors may substitute Discrete Math I with permission of department.	

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
MA 310	Calculus III	4
MA 260	Linear Algebra	3
LASC	Distribution Elective (NSP)	3-4
LASC	Distribution Elective (USW)	3
LASC	Distribution Elective (GP)	3
	Semester Subtotal	**16-17**

Semester Four		
Course No.	**Course Name**	**Credits**
MA 320	Differential Equations or MA Elective[2]	3
MA	300 Level Elective in Major	3
SELECT	General Elective	3
LASC	Distribution Elective (WAC)	3
LASC	Distribution Elective (TLC)	3
	Semester Subtotal	**15**
Comments	[2]MA 320 is offered every other Spring.	

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
MA	300 Level Elective in Major	3
SELECT	General Elective	3
MA	300 Level Elective in Major	3
LASC	Distribution Elective (Constitutions)	3
LASC	Distribution Elective (HBS)	3
	Semester Subtotal	**15**

Semester Six		
Course No.	**Course Name**	**Credits**
MA 405	Abstract Algebra	3
MA 320	Differential Equations[3]	3
SELECT	General Elective	3
SELECT	General Elective	3
LASC	Distribution Elective (ICW)	3
	Semester Subtotal	**15**
Comments	[3]If not taken in semester 4.	

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
MA 410	Real Analysis	3
MA	300 Level Elective in Major	3
MA 470	Capstone in Mathematics[4]	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Semester Eight		
Course No.	**Course Name**	**Credits**
LASC	Distribution Elective (QLAC)	3
LASC	Distribution Elective (DAC)	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**12**
Comments	[4]Student should discuss capstone project with advisor during preceding semester.	

TOTAL CREDITS= 120-121

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

Requirements for the Concentration in Secondary Education: 18 credits

MA 302	Probability and Statistics
MA 340	Modern Geometry
MA 405	Abstract Algebra **or** MA 410 Real Analysis
MA 360	Number Theory
MA 303	Mathematical Modeling

Three additional credits of mathematics at the MA 290-level or above, to be chosen in consultation with the academic advisor.

It is recommended that students planning to take the Massachusetts Test for Educator Licensure (MTEL) for high school certification also complete a physics course.

Department of Mathematics: Mathematics Major Concentration in Secondary Education Sample Timeline for Completion of Degree

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
LASC	First-Year Seminar	3
EN 101	English Composition I	3
MA 200	Calculus I	4
CS 135	Programming for Non-CS Majors (QR)	3
LASC	Distribution Elective(GP)	3
	Semester Subtotal	**16**

Semester Two		
Course No.	**Course Name**	**Credits**
EN 102	English Composition II	3
LASC	U.S. Constitution	3
MA 201	Calculus II	4
MA 240	Theory of Proof [1]	3
LASC	Distribution Elective (Constitutions)	3
	Semester Subtotal	**16**
Comments	**[1]Dual Math/CS majors may substitute Discrete Math I with permission of department** ***Students should consult with their advisors about minoring in secondary education**	

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
MA 310	Calculus III	4
MA 260	Linear Algebra	3
LASC	Natural Systems and Processes	3-4
LASC	Distribution Elective (CA)	3
LASC	Distribution Elective (NSP)	3
	Semester Subtotal	**16-17**

Semester Four		
Course No.	**Course Name**	**Credits**
MA 360	Number Theory	3
MA 303	Math Modeling [2] or MA Elective[3]	3
SELECT	General Elective	3
LASC	Distribution Elective (NSP)	3
LASC	Distribution Elective (USW)	3
	Semester Subtotal	**15**
Comments	**[2]MA 303 is offered every other Spring.** **[3]Only one elective is required; it may be taken in either the Spring or Fall.**	

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
MA 302	Probability and Statistics	3
SELECT	General Elective	3
MA 340	Modern Geometry	3
SELECT	General Elective	3
LASC	Distribution Elective (HBS)	3
	Semester Subtotal	**15**

Semester Six		
Course No.	**Course Name**	**Credits**
MA 405	Abstract Algebra[4]	3
MA 303	Math Modeling[5]	3
LASC	Distribution Elective (ICW)	3
LASC	Distribution Elective (WAC)	3
LASC	Distribution Elective (TLC)	3
	Semester Subtotal	**15**
Comments	**[4]Only one of MA 405 and MA 410 is required.** **[5]If not taken in semester 4.**	

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
MA 410	Real Analysis[6]	3
MA	300 Level Elective in Major[7]	3
MA 470	Capstone in Mathematics	3
SELECT	General Elective	3
LASC	Distribution Elective (DAC)	3
	Semester Subtotal	**15**

Semester Eight		
Course No.	**Course Name**	**Credits**
SELECT	General Elective	3
LASC	Distribution Elective (QLAC)	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**12**
Comments	**[6]Only one elective is required; it may be taken in either the Spring or Fall. [7]Only one of MA 405 and MA 410 is required. [8]Student should discuss capstone project with advisor during preceding semester.**	

TOTAL CREDITS= 120-121

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

Requirements for the Concentration in Statistics and Modeling: 18 credits

MA 302	Probability and Statistics
MA 303	Mathematical Modeling
MA 304	Data Analysis
MA 380	Probability Theory
MA 410	Real Analysis

Three additional credits of mathematics at the MA 290-level or above, to be chosen in consultation with the academic advisor.

Department of Mathematics: Mathematics Major Concentration in Statistics and Modeling Sample Timeline for Completion of Degree

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
LASC	First-Year Seminar	3
EN 101	English Composition I	3
MA 200	Calculus I	4
CS 135	Programming for Non-CS Majors (QR)	3
LASC	Distribution Elective (CA)	3
	Semester Subtotal	**16**

Semester Two		
Course No.	**Course Name**	**Credits**
EN 102	English Composition II	3
LASC	U.S. Constitution	3
MA 201	Calculus II	4
MA 240	Theory of Proof [1]	3
LASC	Distribution Elective (USW)	3
	Semester Subtotal	**16**
Comments	[1]Dual Math/CS majors may substitute Discrete Math I with permission of department.	

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
MA 310	Calculus III	4
MA 260	Linear Algebra	3
LASC	Distributional Elective (NSP)	3-4
CS 265	Database Applications	3
MA302	Probability and Statistics	3
	Semester Subtotal	**16-17**

Semester Four		
Course No.	**Course Name**	**Credits**
	Elective	3
MA 303	Math Modeling [3]or MA 304[2] Data Analysis	3
LASC	Distribution Elective (Constitutions)	3
LASC	Distribution Elective (NSP)	3
LASC	Distribution Elective (WAC)	3
	Semester Subtotal	**15**
Comments	[2]MA 304 is offered every other Spring.	

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
MA	300 Level Elective in Major[4] or MA 380[5] Probability Theory	3
	Elective	3
	Elective	3
LASC	Distribution Elective (GP)	3
LASC	Distribution Elective (ICW)	3
	Semester Subtotal	**15**

Semester Six		
Course No.	**Course Name**	**Credits**
MA	Upper Level Elective[4]	3
MA 303	Math Modeling or MA 304 Data Analysis	3
	Elective	3
LASC	Distribution Elective (TLC)	3
LASC	Distribution Elective (HBS)	3
	Semester Subtotal	**15**
Comments	[4]Only one elective is required; it may be taken in either the Spring or Fall; [5] MA 380 is offered every other Spring.	

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
MA 410	Real Analysis	3
MA 380	Probability Theory	3
MA 470	Capstone in Mathematics[6]	3
LASC	Distribution Elective (QLAC)	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Semester Eight		
Course No.	**Course Name**	**Credits**
LASC	Distribution Elective (DAC)	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**12**
Comments	[6]Student should discuss capstone project with advisor during preceding semester.	

TOTAL CREDITS= 120-121

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

The Mathematics Elementary Education; 1-6 Major

This major serves as a second major for Elementary Education majors. It prepares pre-service teachers to be mathematical leaders in elementary schools.

Requirements for the Mathematics for Elementary Education; 1-6 Major: 33 math credits and 12 education credits.

MA 130	Numbers and Operations for Teachers
MA 131	Patterns, Relations, Functions and Algebra for Teachers
MA 132	Geometry, Measurement, Statistics and Probability for Teachers
MA 190	Precalculus
MA 200	Calculus I
MA 201	Calculus II
MA 240	Theory of Proof
MA 302	Probability and Statistics
MA 303	Mathematical Modeling
MA 360	Number Theory
ED 425	Seminar: Applying Educational Principles
ED 435	Student Teaching in Elementary School

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
FYS	FIrst Year Seminar	3
EN 101	English Composition I (WR)	3
MA 130	Numb & Oper for Teachers	3
	HSBP Elective	3
ED 155	Teaching and Learning in ELE	3
	Semester Subtotal	**15**

Semester Two		
Course No.	**Course Name**	**Credits**
EN 102	English Composition II (WR)	3
HI/PO 218	U.S. History (CON)	3
ED 250	Educational Psychology	3
MA 190	Pre-Calculus	4
MA 131	Patterns, Relations & Algebra	3
	Semester Subtotal	**15**

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
MA 200	Calculus I	4
	USW Elective	3
	GP Elective	3
ED 148	Foundations of Reading	3
ED 275	Curriculum & Instruction in ELE	3
	Semester Subtotal	**16**

Semester Four		
Course No.	**Course Name**	**Credits**
MA 132	Geometry, Measure for Teachers	3
MA 201	Caculus II	4
ED 200	Best Practices for ELL (DAC)	3
	TLC Elective	3
ED 325	Elementary Mathematics	3
	Semester Subtotal	**16**

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
MA 240	Theory of Proof	3
ED 343	Elementary Language Arts & Read	3
MA 302	Probability & Statistics (QLAC)	3
	WAC Elective	3
	Semester Subtotal	**15**

Semester Six		
Course No.	**Course Name**	**Credits**
ED 330	Elementary Social Studies & Multi	3
MA 360	Number Theory	3
	ICW Elective	3
MA 303	Mathematics Modeling (QLAC)	3
	NSP Elective	3
	CA Elective	3
	Semester Subtotal	**18**

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
ED 320	Science for Elementary	3
	QR Elective	3
	NSP Elective - Lab Course	4
	Free Elective	3
	Semester Subtotal	**15**

Semester Eight		
Course No.	**Course Name**	**Credits**
ED 425	Seminar: Apply Ed Principles	3
ED 435	Stuednt Traching in ELE (Capstone)	9
	Semester Subtotal	**12**

Requirements for a Traditional Minor in Mathematics: 18 credits

MA 200 Calculus I
MA 201 Calculus II
MA 220 Discrete Mathematics I or MA 240 Theory of Proof
Electives: minimum of 7 credits in mathematics 290 and above

Requirements for a Financial Mathematics Minor: 18 credits

MA 200 Calculus I
MA 201 Calculus II
MA 310 Calculus III
MA 380 Probability Theory
MA 381 Probability Theory II for Actuarial Science

Requirements for a Middle School Mathematics Minor: 20-21 credits

MA 130 Number and Operations for Teachers
MA 131 Patterns, Functions, and Algebra for Teachers
MA 132 Geometry, Measurement, Probability, and Statistics for Teachers
MA 200 Calculus I
MA 201 Calculus II
MA 220 Discrete Mathematics or MA 240: Theory of Proof or MA 303 Math Modeling

Mathematics Placement

All new students must take the Accuplacer Arithmetic test followed by the Accuplacer Elementary Algebra test. Those who score well on these two basic tests will take an Algebra II/Pre-Calculus test called the College Level Math test. In order to take a mathematics course at Worcester State University, a student must complete the placement test process prior to registration. Results will be used to determine appropriate course placement.

Mathematics Courses

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

MA 098 Arithmetic Developmental Math

Whole numbers, fractions, decimals, percents, rates, ratios, proportions, word problems, graphs, tables, signed numbers, variables and expressions.
Offered every semester. 3 remedial credits. Credits do not count towards graduation.

MA 099 Elementary Algebra Developmental Math

Prerequisite: Placement code 2 or MA 098

Elementary algebra: including linear, quadratic, and rational equations, exponents, polynomials, graphing linear and simultaneous equations, factoring, and radicals.
Offered every semester. 3 remedial credits. Credits do not count towards graduation

MA 105 Survey of Mathematics

LASC—Quantitative Reasoning

Prerequisite: Placement code 3 or above

Financial management, probability theory, voting methods and other topics selected to improve the quantitative literacy of students.
Offered every semester. 3 credits.

MA 130 Number and Operations for Teachers

LASC—Quantitative Reasoning

Prerequisite: Placement code 5 or above

Develops understanding of the mathematical content of number and operations at the deep level required for successful elementary and middle school teaching.
Offered every semester. 3 credits.

MA 131 Patterns, Functions and Algebra for Teachers

LASC—Quantitative Reasoning

Prerequisite: MA 130 with a grade of at least C

Develops understanding of the mathematical content of patterns, functions and algebra at the deep level required for successful elementary and middle school teaching.
Offered every year. 3 credits. Credit will not be awarded for MA180 (formerly MA110) and MA131.

MA 132 Geometry, Measurement, Probability and Statistics for Teachers

LASC—Quantitative Reasoning

Prerequisite: MA 130 with a grade of at least C

Develops understanding of the mathematical content of geometry, measurement, probability and statistics at the deep level required for successful elementary and middle school teaching.
Offered every year. 3 credits

MA 150 Statistics I

LASC—Quantitative Reasoning

Prerequisite: Placement code 4 or above

Descriptive techniques, elementary probability, and introduction to statistical inference.
Offered every semester. 3 credits. Credit will not be awarded for both MA 150 and MA 302.

MA 180 Introduction to Functions (Formerly MA 110 College Algebra)

LASC—Quantitative Reasoning
Prerequisite: Placement code 5 or above

Properties and applications of linear, quadratic, polynomial, rational, exponential, and logarithmic functions; systems of equations and inequalities; complex numbers.
Offered every semester. 3 credits. Credit will not be awarded for both MA180 (formerly MA 110) and MA 131.

MA 190 Precalculus

LASC—Quantitative Reasoning

Prerequisite: MA180 (formerly MA110) with a grade of at least C- or placement code 6 or above

Analytic geometry; Review of exponential and logarithmic functions; trigonometric functions, identities and equations, systems of linear equations and inequalities, applications.
Offered every semester. 4 credits.

MA 193 Special Topics in Mathematics for First-Year Students

All "193" courses are approved for LASC but may vary by section. See current course listing for specific LASC area approval.

Prerequisite: Placement code 5 or above or permission of instructor

Introductory level course covering topics of special interest to first-year students. Offered only as a First-Year Seminar.
Offered every 3 years. 3 credits.

MA 200 Calculus I

LASC—Quantitative Reasoning

Prerequisite: MA 190 with a grade of at least C- or Placement code 7

Limits, continuity, differentiation and integration of functions, the Fundamental Theorem of Calculus, L'Hôpital's Rule, applications including related rates, optimization, and area.
Offered every semester. 4 credits. Credit will not be awarded for both MA 200 & MA 202

MA 201 Calculus II

LASC—Quantitative Reasoning

Prerequisite: MA 200 with a grade of at least C-

Techniques of integration, infinite sequences and series, power series, applications including area, volume, and functional approximation.
Offered every semester. 4 credits.

MA 202 Business Calculus

Prerequisite: MA180 (formerly MA110) with a grade of at least C- or placement code 6 or above

Limits, derivatives of algebraic functions, integration, business applications.
Offered every year. 4 credits. Credit will not be awarded for both MA 200 & MA 202

MA 220 Discrete Mathematics

LASC—Quantitative Reasoning

Prerequisite: MA180 (formerly MA110) with a grade of at least C- or placement code 6 or above

Sets, algorithms, directed graphs, relations, matrices, equivalence relations, partial orders, functions, logic, mathematical induction.
Offered every year. 4 credits Credit will not be awarded for both MA 220 and MA 240

MA 240 Theory of Proof

Prerequisite: MA 200 with a grade of at least C- (may be taken concurrently with permission of the department)

Logic, set theory, mathematical induction, relations, functions, sequences and convergence, limits and continuity, congruence, introduction to groups.
Offered every year. 3 credits. Credit will not be awarded for both MA 220 and MA 240

MA 260 Linear Algebra

Prerequisite: MA 220 or MA 240 with a grade of at least C-

Solutions of simultaneous equations by means of matrices and determinants, vector spaces, linear transformations. Optional topics: characteristic values, bilinear and quadratic forms.
Offered every year. 3 credits.

MA 290 Discrete Mathematics II

Prerequisite: MA 220 or MA 240 with a grade of at least C-

Counting techniques, permutations, combinations, factorization, modular arithmetic, binary numbers, Boolean algebra, recursion and recurrence relations, graphs and trees, elementary linear algebra.
Offered every year. 4 credits.

MA 302 Probability and Statistics

Prerequisite: MA 200 with a grade of at least C-

Descriptive statistics, probability theory including an introduction to calculus based probability theory, combinatorics, correlation, regression and inference techniques.
Offered every year. 3 credits. Credit will not be awarded for both MA 150 and MA 302.

MA 303 Mathematical Modeling

Prerequisite: MA 201 with a grade of at least C-

The development and application of deterministic and probabilistic mathematical models from the physical, social and life sciences.
Offered every year. 3 credits.

MA 304 Data Analysis

Prerequisites: MA 302 and CS 265 with grades of at least C-

Case studies combining applied statistics, mathematical statistics, mathematics, computing, and communications to simulate work experience of a practicing statistician.
Offered every 2 years. 3 credits.

MA 310 Calculus III

Prerequisite: MA 201 with a grade of at least C-

Vectors, parametric equations, polar, cylindrical and spherical coordinates, multivariable functions, properties and applications, partial derivatives, multiple integrals.
Offered every year. 4 credits.

MA 320 Ordinary Differential Equations

Prerequisite: MA 310 (may be taken concurrently) with a grade of at least C-

Techniques for solving first and higher order differential equations, Laplace transforms, Fourier series and power series solutions.
Offered every 2 years. 3 credits.

MA 340 Modern Geometry

Prerequisite: MA 220 or MA 240 with a grade of at least C-

Topics from Euclidean and non-Euclidean geometry.
Offered every year. 3 credits.

MA 360 Number Theory

Prerequisite: MA 220 or MA 240 with a grade of at least C-

Divisibility properties of integers, prime numbers, the Euclidean algorithm, the unique factorization theorem, congruence, Diophantine equations, number theoretic functions.
Offered every year. 3 credits.

MA 380 Probability

Prerequisite: MA 310 with grade of at least C-.

Continuous and discrete probability concepts including: conditional probability, independence, moments of univariate and multivariate random variables. This is the first course in a two course sequence that prepares students for the first Actuarial exam.
Offered every 2 years. 3 credits.

MA 381 Probability Theory for Actuarial Science

Prerequisite: MA 380 with grade of at least C-.

Probabilities, conditional probabilities, moment-generating functions, moments and expectations of specific parametric distributions including Poisson, geometric, hypergeometric, exponential, and normal.
Offered every 2 years. 3 credits.

MA 405 Abstract Algebra

Prerequisite: MA 260 with a grade of at least C-

Sets, mathematical systems, groups, rings, fields.
Offered every year. 3 credits.

MA 410 Real Analysis

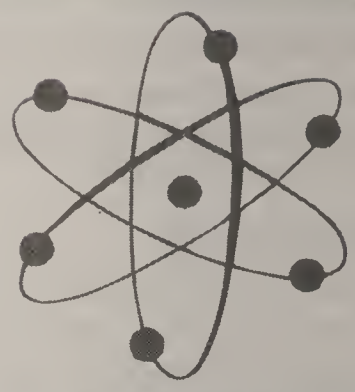
Prerequisites: MA 240 and MA 310 with grades of at least C-

Rigorous treatment of sequences, topology of the real numbers, limits and continuity.
Offered every year. 3 credits.

MA 470 Capstone Experience

LASC - Major Capstone

Students complete an independent mathematics research/problem-solving project, including oral presentations and a final written paper.
Offered every year. 3 credits.



Natural Science
Department of Earth, Environment and Physics

Faculty

William A. Belanger, Associate Professor (1967)
B.S., Ed.M., Worcester State College; M.N.S., Worcester Polytechnic Institute

Patricia A. Benjamin, Associate Professor (2001), Department Chair
B.A., University of Oregon; M.L.S., University of Maryland; M.A., Ph.D., Clark University

Timothy L. Cook, Assistant Professor (2012)
B.S., Brown University; M.S., University of Delaware; Ph.D., University of Massachusetts

Janelle Cornwell, Assistant Professor (2014)
B.A., Prescott College; M.A., University of Mass; Ph.D., UMass Amherst

Douglas R. Dawson, Assistant Professor (2009)
B.A., Princeton University; Ph.D., University of California at Irvine

Matthias Dietrich, Assistant Professor (2014)
M.A., Ph.D., University of Göttingen, Germany

Allison Dunn, Associate Professor (2007) (on sabbatical 2014-15)
B.A., Oberlin College; M.A., Ph.D., Harvard University

William J. Hansen, Associate Professor (2005)
B.A., State University of New York at Albany; M.A., Hunter College;
Ph.D., City University of New York Graduate Center

Douglas E. Kowalewski, Assistant Professor (2012)
B.S., Virginia Polytechnic Institute; Ph.D., Boston University

Stephen Healy, Associate Professor (2007) (on leave)
B.A., Hampshire College; M.S., Ph.D., University of Massachusetts

Francisco J. Lamelas, Associate Professor (2005)
B.S., University of Wisconsin, Milwaukee; M.S., University of Wisconsin;
M.S., Ph.D., University of Michigan

Sudha R. Swaminathan, Associate Professor (2005)
A.B., (Physics), A.B., (Mathematics) Mount Holyoke College;
M.S., Ph.D., University of Michigan

Natural Science is an interdisciplinary science major for students interested in environmental science, allied health professions, science teaching, or other areas that can benefit from a broad scientific background. The major affords students an opportunity to discover scientific fundamentals as part of a general education while preparing for graduate study or employment in a scientific field.

The Environmental Science concentration within the Natural Science major is for students interested in pursuing environmentally-related technical careers or further study in the technical aspects of environmental issues. The concentration provides students with a foundation in the scientific techniques, analyses and tools for assessing human impacts on environmental systems and mitigating or remediating environmental harm.

Completion of the Natural Science degree requirements may prepare students for advanced study in a health profession. Students work closely with an advisor to choose major core and elective courses that will fulfill the prerequisites for admission to such a program. Some students in the Natural Science major may choose to apply for admission to the Nuclear Medicine Technology concentration or the Accelerated Pharmacy Program (see below).

Many students in the Natural Science major are interested in science education. Students in the Elementary Education major may choose Natural Science as a second major. Students interested in teaching science at the middle or secondary school level may choose the concentration in General Science Education or the concentration in Earth Science Education within the Natural Science major. These students are encouraged to declare a minor in Secondary School Education.

The major in Natural Science, pre-MBA concentration is for students planning a business career in a scientific or technical field. Foundation science courses help students understand the principles underlying technologies in fields such as biotech, electronics, or instrumentation. The business and economics courses are designed to prepare students for application to an MBA program and may result in graduate course waivers, shortening the period of graduate study.

NOTE: Students completing the Natural Science major fulfill the 12 credit general education (LASC) requirements in Natural Systems and Processes and Quantitative Reasoning.

Requirements for a Major in Natural Science: 41 credits

Two courses in mathematics, chosen from the following: 6 credits

MA 180 or MA 150 (only one of these may be applied to the major)
MA 190 or any MA course at 200 level or above
(Note: Education students may substitute the MA 130-132 sequence for MA 180 above)

Nine science courses, including six core courses and three electives:

Core science courses: 23 credits
Three one-year sequences chosen from three of the following four disciplines: Biology, Chemistry, Earth Science, Physics.
The three disciplines are chosen according to a student's career plans, in consultation with an advisor.

The one-year sequences are:

BI 140	Intro. to Organismal Biology AND	
BI 141	Intro. to Cellular and Molecular Biology	8 credits
CH 120 and CH 121	General Chemistry I and II	8 credits
GS 101 and GS 140	Physical Geography and Physical Geology	7 credits
PY 221 and PY 222	General Physics I and II OR	
PY 241 and PY 242	Physics I and II	8 credits

3 additional science electives at the 200 level or above: 9 credits

In the case of courses for which the lab component is assigned a separate course number, only the lecture component of the course will be counted towards this requirement.

NS 400 Natural Science Seminar 3 credits

Department of Earth, Environment and Physics: Natural Science Major
Sample Timeline for Completion of Degree

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
LASC	First-Year Seminar	3
LASC	EN 101 English Composition I	3
MA 180	Intro to Functions	3
	[BI, CH, PY, or GS] I	4
LASC	Distribution Elective (ICW*)	3
	Semester Subtotal	**16**

Semester Two		
Course No.	**Course Name**	**Credits**
LASC	EN 102 English Composition II	3
LASC	Constitutions course	3
	[BI, CH, PY, or GS] II	4
LASC	Distribution Elective (HBS*)	3
LASC	Distribution Elective (USW*)	3
	Semester Subtotal	**16**
Comments		

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
MA 190	Precalculus	4
	[BI, CH, PY, or GS] I	4
LASC	Distribution Elective (TLC*)	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**17**

Semester Four		
Course No.	**Course Name**	**Credits**
	[BI, CH, PY, or GS] II	4
LASC	Distribution Elective (CA*)	3
LASC	Distribution Elective (GP*)	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**16**
Comments		

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
	[BI, CH, PY, or GS] I	4
XX 2xx	Science Elective	3
LASC	Distribution Elective (WAC*)	3
LASC	Distribution Elective (DAC*)	3
SELECT	General Elective	3
	Semester Subtotal	**16**

Semester Six		
Course No.	**Course Name**	**Credits**
	[BI, CH, PY, or GS] II	4
XX 2xx	Science Elective	3
LASC	Distribution Elective (QLAC*)	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**16**
Comments		

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
XX 2xx	Science Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Semester Eight		
Course No.	**Course Name**	**Credits**
NS 400	Natural Science Seminar	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments		

TOTAL CREDITS= 127

Note: The sequence of LASC courses marked with * is a suggestion but serves as a reminder that LASC designated courses must be taken to satisfy the LASC requirements. Students planning to take the first-year physics sequence should take Precalculus or Calculus concurrently.

Students in the NS major are not required to take LASC NSP or QR courses outside of the major. Students are required to meet with their department advisor to review their upcoming semester academic choices.

Requirements for a Major in Natural Science, Concentration in Environmental Science: 58-62 credits

Mathematics and Computer Science (10 credits)			
MA	150	Statistics or MA 302 Probability and Statistics	3
MA	190	or any MA course at 200 level or above	4
CS	135	Programming for non-CS Majors	3
One Environmental Policy course (3 credits):			3
GE	240	Energy Conservation	
GE	258	Global Environmental Change	
GE	359/UR 360	Environmental Systems and Public Policy	
Required Natural Science courses (6 credits):			
NS	150	Environmental Science	3
NS	400	Natural Science Seminar	3
Required Biology courses (12 credits):			
BI	140	Introduction to Organismal Biology	4
BI	141	Introduction to Cellular and Molecular Biology	4
BI	202	Ecology	4
Required Chemistry courses (11 credits):			
CH	120	General Chemistry I	4
CH	121	General Chemistry II	4
CH	320	Environmental Chemistry	3
Required Geoscience courses (11 credits)			
GS	101	Physical Geography	3
GS	140	Physical Geology	4
GS	216	Geographic Information Systems	4
One course from:			
CH	335	Green Chemistry	3
BI	334	Wildlife Investigative Techniques	4
GS	370	Lakes and Environmental Change	4
One elective course from the following:			
BI	331	Marine Biology	4
BI	340	Plant Sciences	4
BI	344	Soil Biology	4
BI	380	Biodiversity and Conservation Biology	4
CH	330	Environmental Toxicology	3
GE	341	Fundamentals of Renewable Energy	3
GS	218	Introduction to Remote Sensing	3
GS	225	Oceanography	3
GS	230	Biogeography	3

GS 235	Contemporary Climate Change	3
GS 250	Hydrology	3
GS 260	Introduction to Soil Science	3
GS 318	Geographic Information Systems II	3
GS 335	Hydrogeology	3

GS 470, BI 401, CH 455, or NS 412 Special Topics (with permission of advisor)

Department of Earth, Environment and Physics: Major in Natural Science, Concentration in Environmental Science Sample Timeline for Completion of Degree

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
LASC	First-Year Seminar	3
LASC	EN 101 English Composition I	3
MA 190	Precalculus (or MA 200+)	4
NS 150	Introduction to Environmental Science	3
GS 101	Physical Geography	3
	Semester Subtotal	**16**

Semester Two		
Course No.	**Course Name**	**Credits**
LASC	EN 102 English Composition II	3
LASC	Constitutions course	3
LASC	Distribution Elective (ICW*)	3
MA 150	Statistics (or MA 302)	3
GS 140	Physical Geology	4
	Semester Subtotal	**16**
Comments		

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
BI 140	Introduction to Organismal Biology	4
GS 216	Geographic Information Systems	4
LASC	Distribution Elective (HBS*)	3
LASC	Distribution Elective (TLC*)	3
LASC	Distribution Elective (USW*)	3
	Semester Subtotal	**17**

Semester Four		
Course No.	**Course Name**	**Credi**
BI 141	Introduction to Cellular/Molecular Biology	4
Policy	GE 240 or 258	3
CS 135	Programming for non-CS Majors	3
LASC	Distribution Elective (CA*)	3
LASC	Distribution Elective (GP*)	3
	Semester Subtotal	**16**
Comments		

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credit**
CH 120	General Chemistry I	4
LASC	Distribution Elective (WAC*)	3
LASC	Distribution Elective (DAC*)	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**16**

Semester Six		
Course No.	**Course Name**	**Credit**
CH 121	General Chemistry II	4
BI 202	Ecology	4
LASC	Distribution Elective (QLAC*)	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**17**
Comments		

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
CH 320	Environmental Chemistry	3
SELECT	[Major Elective]	3-4
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15-16**

Semester Eight		
Course No.	**Course Name**	**Credits**
NS 400	Natural Science Seminar	3
SELECT	CH 335 or BI 334 or GS 370	3-4
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15-16**
Comments		

TOTAL CREDITS= 128-130

Note: The sequence of LASC courses marked with * is a suggestion but serves as a reminder that LASC designated courses must be taken to satisfy the LASC requirements.

Students in the NS major are not required to take LASC NSP or QR courses outside of the major. Students are required to meet with their department advisor to review their upcoming semester academic choices.

Requirements for a Major in Natural Science, pre-MBA Concentration: 60 credits

(For Track I students the 6 credit Quantitative Reasoning and 6 credit Natural Systems and Processes General Education (LASC) requirements are fulfilled, so the effective number of required credits is 45.

For Track II students the 12 credit Natural Science and Mathematics Distribution Requirement is fulfilled so the number of required credits is 45.)

(See Academic Policies and Procedures– General Education Requirements for more information).

Economics and Business Administration (18 credits):

EC 110	Introduction to Microeconomics	3
EC 120	Introduction to Macroeconomics	3
BA 200	Principles of Management and Organizational Behavior	3
BA 210	Fundamentals of Accounting I	3
BA 220	Fundamentals of Accounting II	3
BA 316	Financial Management or BA 318: Principles of Marketing	3

Mathematics (7 credits):

MA 150	Statistics I or MA 302 Probability and Statistics	3
MA 200	Calculus I or MA 202 Business Calculus	4

Core science courses (see major requirements) (23-24 credits):
Three one-year sequences chosen from three of the following four disciplines:

BI 140 and BI 141			8
CH 120 and CH 121			8
GS 101 and GS 140			7
PY 221 and PY 222	or	PY 241 and PY 242	8

3 additional science electives at the 200 level or above 9

NS 400: Natural Science Seminar 3

Requirements for a Major in Natural Science, Concentration in Earth Science Education (Middle/Secondary): 54 credits

Mathematics (12 credits)
- MA 130 Number and Operations for Teachers
- MA-131 Patterns, Functions and Algebra for Teachers
- MA-132 Geometry, Measurement, Probability and Statistics for Teachers
- MA 190 Precalculus or any MA course at 200 level or above

Earth Science (17 credits)
- GS 101 Physical Geography
- GS 110 Meteorology
- GS 140 Physical Geology
- GS 216 Geographic Information Systems I
- GS 225 Oceanography

Physics (11 credits)
- PY 101 Introduction to Astronomy
- PY 221 & 222 General Physics I and II
  or PY 241 & 242 Physics I and II

Biology (4 credits)
- BI 140 Introduction to Organismal Biology

Chemistry (4 credits)
- CH 110 Introduction to General, Organic, and Biochemistry I
  (May substitute CH 120 & 121 General Chemistry I and II)

Additional Required Course (3 credits)
- NS 201 Science and Society

Required for All Natural Science Majors (3 credits)
- NS 400 Natural Science Seminar

Optional Recommended Courses (17 credits)
- BI 202 Principles of Ecology
- GS 220 Earth History
- GS 235 Contemporary Climate Change
- GS 245 Planetary Geology
- GS 250 Hydrology

Additional Optional Course (4 credits)
- BI 141 Introduction to Cellular and Molecular Biology

Department of Earth, Environment and Physics: Major in Natural Science, Concentration in Earth Science Education
Sample Timeline for Completion of Degree

EAR ONE

Semester One		
Course No.	Course Name	Credits
_ASC	First-Year Seminar	3
_ASC	EN 101 English Composition I	3
MA 130	Number and Operations for Teachers	3
GS 101	Physical Geography	3
_ASC	Distribution Elective (ICW*)	3
	Semester Subtotal	**15**

Semester Two		
Course No.	Course Name	Credits
_ASC	EN 102 English Composition II	3
_ASC	Constitutions course	3
MA 131	Patterns, Functions, Algebra	3
GS 140	Physical Geology	4
_ASC	Distribution Elective (HBS*)	3
	Semester Subtotal	**16**

EAR TWO

Semester Three		
Course No.	Course Name	Credits
BI 140	Introduction to Organismal Biology	4
GS 110	Meteorology	3
MA 132	Geometry, Measurement, Probability and Statistics for Teachers	3
_ASC	Distribution Elective (USW*)	3
_ASC	Distribution Elective (TLC*)	3
	Semester Subtotal	**16**

Semester Four		
Course No.	Course Name	Credits
CH 110	Introduction to Chemistry I (or CH 120 & 121)	4
GS 216	Geographic Information Systems	4
_ASC	Distribution Elective (GP*)	3
_ASC	Distribution Elective (CA*)	3
SELECT	General Elective	3
	Semester Subtotal	**17**
Comments		

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
PY 221	General Physics I (or PY 241)	4
MA 190	Precalculus	4
GS 225	Oceanography	3
LASC	Distribution Elective (WAC*)	3
LASC	Distribution Elective (DAC*)	3
	Semester Subtotal	**17**

Semester Six		
Course No.	**Course Name**	**Credits**
PY 222	General Physics II (or PY 242)	4
NS 201	Science and Society	3
PY 101	Astronomy	3
LASC	Distribution Elective (QLAC*)	3
SELECT	General Elective	3
	Semester Subtotal	**16**
Comments		

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
SELECT	Optional Recommended Course	3-4
SELECT	Optional Recommended Course	3
SELECT	Optional Recommended Course	3
SELECT	General Elective (or BI 141)	3-4
SELECT	General Elective	3
	Semester Subtotal	**15-17**

Semester Eight		
Course No.	**Course Name**	**Credits**
NS 400	Natural Science Seminar	3
SELECT	Optional Recommended Course	3
SELECT	Optional Recommended Course	3
SELECT	General Elective (or CH 121)	3-4
SELECT	General Elective	3
	Semester Subtotal	**15-16**
Comments		

TOTAL CREDITS= 127-129

Note: The sequence of LASC courses marked with * is a suggestion but serves as a reminder that LASC designated courses must be taken to satisfy the LASC requirements.

Students in the NS major are not required to take LASC NSP or QR courses outside of the major. Students are required to meet with their department advisor to review their upcoming semester academic choices.

Requirements for a Major in Natural Science Concentration in General Science Education (Middle): 54 credits

Mathematics (12 credits)
- MA 130 Number and Operations for Teachers
- MA-131 Patterns, Functions and Algebra for Teachers
- MA-132 Geometry, Measurement, Probability and Statistics for Teachers
- MA 190 Precalculus or any MA course at 200 level or above

Physics (11 credits)
- PY 101 Astronomy
- PY 221 & 222 General Physics I and II
  - or PY 241 & 242 Physics I and II

Biology (8 credits)
- BI 140 Introduction to Organismal Biology
- BI 141 Introduction to Cellular and Molecular Biology

Chemistry (4-8 credits)
- CH 110 Introduction to General, Organic, and Biochemistry I
  - or CH 120 & 121 General Chemistry I and II

Earth Science (7 Credits)
- GS 101 Physical Geography
- GS 140 Physical Geology

Additional Required Courses (9 credits)
- NS 201 Science and Society
- GS 110 Meteorology
- One elective (BI, CH, GS, or PY) at 200 level or above

Required for All Natural Science Majors (3 credits)
- NS 400 Natural Science Seminar

Optional Recommended Course (4 credits)
- NS 120 Integrated Science I

Department of Earth, Environment and Physics: Major in Natural Science, Concentration in General Science Education Sample Timeline for Completion of Degree

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
LASC	First-Year Seminar	3
LASC	EN 101 English Composition I	3
MA 130	Number and Operations for Teachers	3
GS 101	Physical Geography	3
LASC	Distribution Elective (ICW*)	3
	Semester Subtotal	**15**

Semester Two		
Course No.	**Course Name**	**Credits**
LASC	EN 102 English Composition II	3
LASC	Constitutions course	3
MA 131	Patterns, Functions, Algebra	3
GS 140	Physical Geology	4
LASC	Distribution Elective (HBS*)	3
	Semester Subtotal	**16**

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
BI 140	Introduction to Organismal Biology	4
CH 110	Introduction to Chemistry I (or CH 120)	4
MA 132	Geometry, Measurement, Probability and Statistics for Teachers	3
LASC	Distribution Elective (USW*)	3
LASC	Distribution Elective (TLC*)	3
	Semester Subtotal	**17**

Semester Four		
Course No.	**Course Name**	**Credits**
BI 141	Introduction to Cellular and Molecular Biology	4
GS 110	Meteorology	4
LASC	Distribution Elective (GP*)	3
LASC	Distribution Elective (CA*)	3
SELECT	General Elective (or Ch 121)	3-4
	Semester Subtotal	**17**

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
PY 221	General Physics I (or PY 241)	4
MA 190	Precalculus	4
LASC	Distribution Elective (WAC*)	3
LASC	Distribution Elective (WAC*)	3
SELECT	General Elective	3
	Semester Subtotal	**17**

Semester Six		
Course No.	**Course Name**	**Credits**
PY 222	General Physics II (or PY 242)	4
NS 201	Science and Society	3
LASC	Distribution Elective (QLAC*)	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**16**

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
NS 120	Integrated Science	4
PY 101	Astronomy	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**13**

Semester Eight		
Course No.	**Course Name**	**Credits**
NS 400	Natural Science Seminar	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**12**

TOTAL CREDITS= 123

Note: The sequence of LASC courses marked with * is a suggestion but serves as a reminder that LASC designated courses must be taken to satisfy the LASC requirements.

Students in the NS major are not required to take LASC NSP or QR courses outside of the major. Students are required to meet with their department advisor to review their upcoming semester academic choices.

Requirements for a Major in Natural Science, Concentration in Nuclear Medicine Technology: (*See program description under Biology.*) Students must meet with the Worcester State University NMT coordinator in order to apply for admission to this program.

Requirements for a Major in Natural Science and to meet the prerequisites for the Accelerated Pharmacy Program with Massachusetts College of Pharmacy and Health Science University (MCPHS) *(Please see program description.)*

MCPHS prerequisites require completing the Natural Science degree with the following courses:

MA 150	Statistics
MA 200	Calculus
MA 201	Calculus II
BI 140	Introduction to Organismal Biology
BI 141	Introduction to Cellular and Molecular Biology
CH 120	General Chemistry I
CH 121	General Chemistry II
CH 201/203	Organic Chemistry I with Laboratory
CH 202/204	Organic Chemistry II with Laboratory
PY 221	General Physics I
PY 222	General Physics II
BI 204	Microbiology
NS 400	Natural Science Seminar

Natural Science Courses

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

NS 120 Integrated Natural Science I

LASC – Natural Systems and Processes (Laboratory Course)

Introduction to the scientific method, physical, biological and earth science related to evolution/genetics and energy. Three lecture hours and three laboratory hours per week.
Offered every year. 4 credits.

NS 150 Environmental Science

LASC – Natural Systems and Processes

Interdisciplinary scientific study of human impacts on natural systems. Introduction to fundamental concepts and tools of environmental impact analysis.
Offered every year. 3 credits.

NS 193 Special Topics in Natural Science for First-Year Students

All "193" courses are approved for LASC but may vary by section. See current course listing for specific LASC area approval.

Introductory level course covering topics of special interest to first-year students. Offered only as a First-Year Seminar.
Offered every year. 3 credits.

NS 199 Special Topics in Natural Science

Prerequisite: Consent of the instructor

Lecture or laboratory course in selected areas of natural science presented by departmental instructor. Topics will be announced in advance.
1-6 credits.

NS 201 Science and Society

Science examined in an historical and social context; the impact of science on man's interpretation of the natural world. For non-science majors.
Offered every year. 3 credits.

NS 400 Natural Science Seminar

Prerequisite: Senior Natural Science major and permission of the instructor.

A capstone course. Independent projects include studying scientific literature, summarizing peer-reviewed articles, preparing science lessons with experiments, preparing resumes.
Offered every year. 3 credits.

NS 410 Independent Study in Natural Science

Prerequisite: Consent of department

Opportunity for advanced students to pursue a topic of special interest involving extensive reading, experimentation, and research.
Offered every year. 1-6 credits.

NS 412 Special Topics in Natural Science

Prerequisite: Consent of department

Intended for the undergraduate who wishes to undertake study of selected topics in Natural Science of mutual interest to student and faculty.
1-6 credits.

Nursing
Dr. Lillian R. Goodman Department of Nursing

a beat above the rest

Faculty

Susan Alix, Assistant Professor (2006)
R.N., St. Vincent Hospital School of Nursing; B.S., Worcester State College; M.S, University of Massachusetts, Worcester; D.N.P., Samford University

Amy Aviles, Instructor (2012)
B.S., University of Massachusetts, Lowell; M.S., Rivier College

Kelly Carlson, Assistant Professor (2014)
Newton-Wellesley Hospital School of Nursing
B.S.N, M.S.N., Ph.D., University of Tennessee

Stephanie Chalupka, Professor (2008), Associate Dean for Nursing
A.S., Quinsigamond Community College; B.S., Worcester State College; M.S., Boston College; Ed.D., University of Massachusetts, Amherst

Melissa D. Duprey, Assistant Professor (2014)
A.S.N., Manatee Community College, B.S.N., University of South Florida, M.S.N., University of Alabama, Ed.D., Walden University

Jodi Fortunato, Instructor (2013)
B.A., Assumption College; M.S.N., MGH Institute of Health Professions

Barbara Ann Giguere, Professor (1980)
R.N., Worcester City Hospital School of Nursing; B.S., Worcester State College; M.S., University of Connecticut; Ed.D., University of Massachusetts, Amherst

Barbara LaForce, Instructor (2014)
A.S., Quinsigamond Community College; B.S., University of Massachusetts Amherst; M.S., University of Massachusetts Lowell

Robyn Leo, Associate Professor,(1995), Department Chair
R.N., Framingham Union Hospital School of Nursing; B.S., Worcester State College; M.S., University of Connecticut

Patricia Moran, Instructor (2013)
A.S., Mass Bay Community College; B.S., M.S., Worcester State University

Michelle Page, Instructor (2014)
B.S.N., Hawaii Pacific University, M.S.N., Framingham State University

Maryann Sabetti-Gramajo, Instructor (2013)
A.S., Bunker Hill Community College; B.A. Lesley College; M.A., University of Massachusetts Amherst; M.S., Worcester State College

Judy Tuori, Instructor (2012)
B.S., D'Youville College; M.S., Anna Maria College; M.S., University of Massachusetts Lowell

Accreditation

- Full approval status from the Commonwealth of Massachusetts Board of Registration in Nursing located at 239 Causeway St. Boston, MA 02114
- Accredited by the Commission on Collegiate Nursing Education (CCNE). One Dupont Circle, NW, Suite 530, Washington, DC 20036
- Member of the Massachusetts Association of Colleges of Nursing (MACN).

General Information

Admissions

The nursing program leads to a Bachelor of Science degree.

The program offers three tracks in the undergraduate major in nursing: **Track One** is for the student who is seeking initial baccalaureate education in the nursing profession and **Track Two** is for the student who has obtained licensure as a registered nurse graduated from an Associate Degree or Diploma accredited program and is pursuing a baccalaureate degree. **Track Three** is for the student who has obtained licensure as a licensed practical nurse and graduated from an accredited program and is pursuing a baccalaureate degree.

Mission Statement

The mission of the Dr. Lillian R. Goodman Department of Nursing is in keeping with the Worcester State University mission with the emphasis on developing the professional nurse who values lifelong intellectual growth and global awareness. The Department of Nursing fosters the professional growth of faculty and students through excellence in teaching and learning, rooted in scholarship and community service related to the discipline of nursing.

Undergraduate Program Outcomes

The Department of Nursing prepares individuals for the roles and responsibilities of professional nursing through an undergraduate program leading to the Bachelor of Science degree.

The program outcomes of the undergraduate program are as follows:

1. Provide comprehensive, holistic care that is grounded in the biological sciences, the arts and humanities.
2. Demonstrate an understanding of a variety of organizational structures, missions, visions, philosophies and values.
3. Utilize current theoretical, scientific and research knowledge toward evidence based professional practice.
4. Demonstrate competence in utilizing information technology resources to advance professional practice
5. Comply with the Standards of Professional Nursing Practice.
6. Implement effective inter-professional communication when working with the health care team.
7. Implement evidence based practice to guide the nursing process toward culturally sensitive, individual and population focused care.
8. Apply the professional standards of moral, ethical and legal conduct to practice.
9. Demonstrate clinical competency, accountability and ethical decision making as an entry level, novice professional nurse.

The nursing department has department-specific policies which are found in the Department of Nursing Undergraduate Student Policy Handbooks. These policies include, but are not limited to, the following: progression and retention, classroom and clinical behavior, academic honesty, professional behavior, and CORI/drug screening/health requirements. The department reserves the right to modify policies and the curriculum during the students' enrollment. Sufficient notice of any change will be provided to students.

Progression in the program requires successful completion of all pre and corequisite courses, sequential nursing courses and all clinical placements offered in each course.

Good Moral Character Required for Licensure

In compliance with policy of the Massachusetts State Board of Nursing, all applicants/ students are informed that completion of the BS degree does not guarantee admittance to the registered nurse licensure examination. According to Board Licensure Policy 00-01, any individual convicted of a felony or misdemeanor conviction, and/or who has been disciplined by a licensure/certification body must be evaluated by the Board to determine a licensure applicant's compliance with the "good moral character" licensure requirement established at Massachusetts General Laws, Chapter 112 , section 74 and 74A. Any individual who has been convicted of a felony or misdemeanor conviction, and/or who has been disciplined by a licensure/certification body, or whose ability to practice professional nursing is adversely affected by a physical or mental disability/illness that may endanger the health and/or safety of a person, should seek special advising prior to enrolling in any professional nursing program in Massachusetts. Individuals convicted of certain criminal convictions are permanently excluded from nurse licensure in Massachusetts.

All students in the nursing program will be required to have periodic CORI (Criminal Offender Record Information) checks requested by the department and/or clinical agencies. This background check is a computerized search to determine if an individual has any convictions, outstanding warrants or pending complaints. The information from these records is confidential and is destroyed when a student graduates. Progression and mandatory clinical placements in the nursing program are contingent on a "no report" CORI check result. Clinical agencies may independently perform CORI checks on students and do not have to accept a student with a CORI report indicating that an offense exists. The department is not responsible for alternate clinical placements for students who cannot be placed in an agency related to a CORI offense report. Students have an obligation to inform the department chair if any legal issues arise, while in the program, that are reportable on a CORI.

Health Care Agency Requirements: Health, Drug Screening and Other

Nursing students will be placed in a variety of health care settings. Each agency has requirements which the student must fulfill before they are allowed placement. This list may include, but is not limited to, the following; physical exam, immunizations, agency specific orientation, CORI, SORI and drug screening. Progression and mandatory clinical placements in the nursing program are contingent on meeting all agency requirements. If a student is denied placement by the agency for any reason, including a positive drug or CORI report, the nursing department is not responsible for providing alternate clinical placements.

Track One (Undergraduate)

Track One Courses

Prerequisite courses to be successfully completed by the end of Spring semester first year:

* BI 161 & BI 162	Human Anatomy and Physiology I and II
* CH 112	Survey of Chemistry
* EN 101 & EN 102	English Composition I and II
* BI 206	Medical Microbiology

Corequisite courses to be successfully completed by the end of Spring semester sophomore year:

* HE 120	Health and Nutrition
* MA 150	Statistics
* CS 124	Health Informatics

Corequisite courses to be successfully completed by the end of Fall semester sophomore year:

* PS 101	General Psychology
* SO 100	Introduction to Sociology

*Students must achieve a grade of 2.0 in each of these courses. Each course may be repeated only ONCE to obtain minimum required grade. A student not meeting the minimum grade requirement will not be considered for transfer acceptance into or allowed continued progression in the nursing program.

A student who fails to complete any prerequisite and/or corequisite course on time will remain as a nursing major; however, progression in the nursing program will depend on satisfactory completion of these courses and space availability.

Required Nursing Courses: 60 credits – All Nursing courses must be taken in sequence.

NU	200	Introduction to Professional Nursing I	5 credits
NU	205	Pathophysiology	3 credits
NU	210	Introduction to Professional Nursing II	5 credits
NU	215	Pharmacology	3 credits
NU	310	Nursing Science I	9 credits
NU	315	Group Communication Seminar I	1 credit
NU	340	Nursing Science II	9 credits
NU	415	Group Communication Seminar II	1 credit
NU	430	Research Seminar	3 credits
NU	440	Nursing Science III	8 credits
NU	450	Leadership in Nursing	3 credits
NU	460	Nursing Science IV	8 credits
NU	470	Capstone	2 credits

Students must achieve a minimum grade of 80 in each nursing course and each section of the course when a course has two distinct class/clinical components (NU 310, NU 340, NU 440). The Department of Nursing has additional policies and procedures which are binding for nursing majors. Included in these policies are standards for progression in the nursing major. They are found in the *Nursing Department's Student Handbook*.

Foundation courses, nursing courses, prerequisite and corequisite courses may not be taken pass/fail.

Transfer Students: Students taking general education courses in another college or university are required to contact the Worcester State University Admissions Office regarding matriculation and transfer of credits. Transfer students are accepted to the

nursing major on a very limited space available only basis. Students are admitted into the freshmen or sophomore class level only depending on pre-requisites taken.

All transfer student applicants for Track One who have previously been enrolled in a nursing program in another college/university must submit, as part of their application, a letter from the dean or director of the nursing program indicating that they left in good standing and were eligible for readmission to that program.

Transfer students may only apply two (2) times for admission into the nursing major.

Track Two (RN-to-BS Program)

Admission Process

All students applying to the RN-BS program must be currently licensed to practice as an RN in the Commonwealth of Massachusetts. The RN-BS student applying to Worcester State University as a transfer student can receive up to 65 credits transferrable from an accredited associate degree college and a maximum of 90 credits from four year colleges and universities. Admission requirements include official high school and college transcripts and a 2.5 GPA. Associate degree graduates and diploma graduates earn 29 nursing credits for NCLEX-RN licensure.

The three semester nursing sequence starts in the Fall semester. All applicants must complete the required components of the admission process prior to May 1 for consideration of admittance for September. Students who wish to matriculate into the program and begin taking prerequisites or corequisites early may be admitted as an early admission by completing the application process.

Track Two Prerequisite Courses

These courses may be transferred if the student has previously taken the course (per college transfer policy) or may be taken at Worcester State University. Foundation courses, nursing courses, prerequisite and corequisite courses may not be taken pass/fail.

• EN 101 & EN 102	English Composition 1 & II (*EN 101 may be waived)
• MA 150	Introduction to Statistics (*pre requisite for NU 430-A: Research Seminar OR NU 925: Research for Evidence-Based Practice) (An *Accuplacer* math test may be required by Worcester State University prior to registering for courses)
• SO 100	Introduction to Sociology
• PS 101	General Psychology
• BI 161 & 162	Anatomy & Physiology I & II
• BI 204 or 206	Microbiology or BI 206 Medical Microbiology

Track Two Nursing Courses: (31 Worcester State University Nursing Credits)

All nursing courses must be taken in sequence. Students must achieve a minimum grade of 80 in each nursing course. Only one nursing course may be repeated to obtain the minimum grade or required GPA and must be repeated within the 2 years.

Semester One

• NU 332	Transition to Professional Nursing (3 credits)
• NU 342	Health Assessment (4 credits)

Semester Two

- NU 430-A Research Seminar (3 credits)
  OR
  NU 525 Research for Evidence-Based Practice (3 credits)
  RN-to-MS Fast Track Program Please see below*
- NU 432 Advancing Nursing Perspectives in Chronic Illness (9 credits)

Semester Three

- NU 452 Professional Nursing Leadership in Organizations (3 credits)
  OR
  NU 551 Nursing Leadership and Administration (3 credits)
  RN-to-MS Fast Track Program Please see below*
- NU 472 Community Nursing Capstone Course (9 credits)

RN-to-MS Fast-Track Program*

The RN-to-MS Fast Track Program allows 6 graduate credits (500 Level) taken while completing the senior year to count toward both the Bachelor of Science and the Master of Science in Nursing degrees. This may be done when the RN meets the criteria for the Fast-Track program, and completes an application for admission to the RN-to-MS Fast-Track Program to the Graduate Nursing Program through the Graduate School. The RN-to-MS Fast-Track application process must be completed in the first semester of the RN-to-BS Program.

The GRE is waived for students who enter the Master of Science in Nursing program through the RN-to-MS Fast-Track Program. Only course grades of B- or above can be counted toward the Master of Science in Nursing degree.

Fast-track students must take courses in the M.S. program the semester after completing the B.S. degree. Otherwise 500 Level courses taken in the senior year will count only towards the RN-to-BS degree unless they are in excess of the credits required for the B.S. degree.

Clinical Course Requirements for both Track One, Track Two and Track Three:

Prior to registering for a clinical practicum course, students must submit written verification of:

1. Complete physical examination — updated annually — form available from Nursing Department Secretary (508-929-8129), for tracks two and three. Track One students should access forms from www.certifiedbackground.com,
2. Documentation of an initial 2-step tuberculin skin test (TST) is required first year, then an annual TST. A TST may be available through the Worcester State University Student Health Service — follow up x-rays may be required,
3. Positive varicella titre level or 2 doses of Varicella vaccine,
4. Two (2) MMR (measles [rubeola], mumps and rubella) vaccines, or titre levels for each (measles, mumps, and rubella) which indicate immunity,
5. One dose of tetanus-diptheria-pertussis (Tdap) vaccine if it has been 5 or more years since the last does of the tetanus-diptheria (T-D) vaccine administered. Evidence of Tdap and/or T-D must be submitted,
6. Series of three vaccinations for Hepatitis B and positive titre level,
7. Basic Cardiac Life Support (BCLS) (Adult and Child) for the healthcare provider/professional rescuer certification must be maintained throughout the program. No online courses are allowed,

8. CORI is required for all students,
9. SORI and/or drug screening may be required by health care agencies,
10. Seasonal flu immunizations is required,
11. In addition to the above requirements, RN students must submit a photocopy of an unencumbered MA Nursing license,
12. Professional liability insurance is renewed annually provided by Worcester State University.

Student Organizations:

National Student Nurses' Association: Student led organization that is actively involved in outreach leadership development. Membership is mandatory for matriculated students.

Sigma Theta Tau International: Iota Phi Chapter-at-Large: the International Honor Society for Nurses provides leadership and scholarship in practice, education and research to enhance the health of all people. Students are selected for membership into the local chapter of the Iota Phi Chapter-at-Large based on academic and personal criteria.

IHI Open School: The mission of the IHI Open Schoolis to advance health care improvement and patient safety competencies in the next generation of health professionals worldwide. The IHI Open House School provides inter-professional opportunities for students of medicine, nursing, public health, pharmacy, health administration, dentistry, and other allied health professions with the opportunity to learn about quality improvement and patient safety. IHI is a leading innovator in health and health care improvement worldwide.

Requirements for Graduation: For the Bachelor of Science Degree with a major in Nursing students must have:

- Completed a minimum of 120 credits
- Completed each nursing course (and each component) with a minimum grade of 80
- Completed all Nursing Department and Worcester State University requirements

Dr. Lillian R. Goodman Department of Nursing Sample Timeline for Completion of Degree for Class Entering Fall 2014

YEAR ONE

Semester One A (Freshmen)		
Course No.	**Course Name**	**Credits**
EN101	English Composition I	3
BI 161	Human Anatomy and Physiology I	4
CH 112	Survey of Chemistry (NSP)	5
FYS	First-Year Seminar	3
	Semester Subtotal	**15**

Semester Two A (Freshmen)		
Course No.	**Course Name**	**Credits**
EN 102	English Composition II	3
BI 162	Human Anatomy and Physiology II (NSP)	4
BI 206	Medical Microbiology (NSP)	4
SO 100 or PS 101	Introduction to Sociology (HBS)/General Psychology I (HBS)	3
	One credit elective (your choice)	1
	Semester Subtotal	**15**
Comments	EN 101 & 102 satisfies LASC writing. Freshmen year: pick 1 credit elective of student's choice semester 2	

YEAR TWO

Semester Three A (Sophomore)		
Course No.	**Course Name**	**Credits**
NU 200	Introduction to Professional Nursing I	5
NU 205	Pathophysiology	3
HE 120	Health and Nutrition (ICW)	3
LASC	Distribution Elective (Constitutions)	3
SO 100 or PS 101	Introduction to Sociology/ General Psychology I (HBS)	3
	Semester Subtotal	**17**

Semester Four A (Sophomore)		
Course No.	**Course Name**	**Credits**
NU 210	Introduction to Prof. Nursing II	5
NU 215	Pharmacology	3
MA 150	Statistics (QR)	3
CS 124	Health Informatics (QR)	3
	Semester Subtotal	**14**
Comments	MA 150 requires Accuplacer score of 4 or higher.	

YEAR THREE

Semester Five (Junior)		
Course No.	**Course Name**	**Credits**
NU 310	Nursing Science I (WAC)	9
NU 430	Research (QLAC)	3
	LASC Elective	3
	Semester Subtotal	**15**

Semester six (Junior)		
Course No.	**Course Name**	**Credits**
NU 340	Nursing Science II (DAC)	9
NU 315	Group Communication	1
	LASC Elective	3
	LASC Elective	3
	Semester Subtotal	**16**
Comments	Junior Year Pick one (3 credit) course in: GP, TLC, USW	

YEAR FOUR

Semester Seven (Senior)		
Course No.	**Course Name**	**Credits**
NU 440	NSG Science III	8
NU 415	Group Communication II	1
	LASC Elective	3
	LASC Elective	3
	Semester Subtotal	**15**

Comments	Senior Year Fall needs: 1 Creative Arts & 1 Constitution

Semester Eight (Senior)		
Course No.	**Course Name**	**Credits**
NU 460	NSG Science IV	8
NU 450	Leadership	3
NU 470	Capstone	2
	Elective	3
	Semester Subtotal	**16**
Comments	Senior Year Spring Semester need: 3 Credit Elective of student's choice.	

LPN-to-BSN Full Time for NACE NLN Entrance Exam: 18 credits

LPN separate classes *
LPNs integrated with Sophomores **
LPNs integrated with Juniors ***
LPN integrated with Seniors ****

Students enter as Freshmen: **Must complete all of these courses BEFORE moving to sophomore level.**

YEAR ONE

Fall Semester One		
Course No.	**Course Name**	**Credits**
BI 161	Anatomy and Physiology I	4
EN 101	English Composition I	3
PS 101	General Psychology (HBSP)	3
CH 112	Survey of Chemistry (NSP #2)	5
	Semester Subtotal	**15**

Spring Semester Two		
Course No.	**Course Name**	**Credits**
BI 162	Human Anatomy and Physiology II (NSP #1)	4
EN 102	English Composition II	3
BI 206	Medical Microbiology	4
MA 150	Intro to Statistics (QR #1)	3
	Semester Subtotal	**14**

YEAR TWO

Fall Semester		
Course No.	**Course Name**	**Credits**
NU 205	**Pathophysiology	3
NU 203	* Transition from LPN to Professional Nursing	1
NU 430	*** Nursing Research QLAC	3
SO 100	Introduction to Sociology	3
	HI Constitution Course	3
	Semester Subtotal	**13**

Spring Semester		
Course No.	**Course Name**	**Credits**
NU 215	Pharmacology	3
CS 124	CS Health Informatics (QR #2)	3
NU 213	* Health Assessment	2
HE 120	Health and Nutrition (ICW)	3
	LASC (GP)	3
	Semester Subtotal	**14**

YEAR THREE

Semester Summer		
Course No.	**Course Name**	**Credits**
NU 342	* Nursing Care of the Medical Surgical Patient Bridge I	4
	LASC (USW)	3
	LASC (DAC)	3
	Semester Subtotal	**10**

Summer II Semester		
Course No.	**Course Name**	**Credits**
NU 343	* Nursing Care of the Family Bridge	5
	LASC (CA)	3
	Elective	1
	Semester Subtotal	**9**

YEAR FOUR

Fall Semester		
Course No.	**Course Name**	**Credits**
NU 440	*** Nursing Science III	8
	LASC (WAC)	3
	LASC (TLC)	3
	Semester Subtotal	**14**

Semester Spring		
Course No.	**Course Name**	**Credits**
NU 460	**** Nursing Science IV	8
NU 450	**** Nursing Leadership	3
NU 470	**** Nursing Capstone	2
	Semester Subtotal	**13**

Students enter as Freshmen

- Must complete all courses listed in Freshmen year in order to move to Sophomore level.

Sophomore year (year 2)

- Students take some courses with sophomores (Patho and Pharm)
- Students take one course with juniors (Research)
- Students take 2 LPN courses (Transition and Health Assessment)

Junior year is during the summer between sophomore and senior level

- Summer I Session: Med/Surg
- Summer II Session: Maternity/PEDI

Senior year: students are integrated with senior students and follow their schedules

Nursing courses must be taken in sequence, but LASC courses can be taken at any time after freshmen year ***but must be completed prior to Pinning***.

LPN's must pass entrance NACE exams to be admitted to the program.

- Must download results from NLN site and submit as part of their admission packet which is given to the Registrar in order to receive 18 credits.

Approved by The DON Undergraduate Curriculum Committee and Faculty Organization via vote 3/2012.

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

Progression Sequencing:

1. All nursing courses must be taken in sequence.
2. All nursing courses must be completed by the end of each semester.
3. The four required foundation courses: English Composition I and II, and Constitution courses may not be taken on a pass/fail basis, as well as the highlighted items below.
4. There are 8 prerequisite courses which must be completed prior to starting sophomore nursing courses and are as follows:

a. BI 161 Human Anatomy & Physiology I	**Satisfactory: minimum grade of C**
b. BI 162 Human Anatomy & Physiology II	**Satisfactory: minimum grade of C**
c. CH 112 Survey of Chemistry	**Satisfactory: minimum grade of C**
d. EN 101 English Composition I	**Satisfactory: minimum grade of C**
e. EN 102 English Composition II	**Satisfactory: minimum grade of C**
f. MA 150 Inroduction to Statistics	**Satisfactory: minimum grade of C**
g. BI 206 Medical Micro	**Satisfactory: minimum grade of C**

h. PS 101 General Psychology	Satisfactory: minimum grade of C
OR	
i. SO 100 Intro to Sociology	Satisfactory: minimum grade of C

5. The following 5 prerequisite courses must be completed prior to beginning summer bridge courses:

a. HE 120 Health and Nutrition	Satisfactory: minimum grade of C
b. CS 150 Health Informatics	Satisfactory: minimum grade of C
c. PS 101 General Psychology	Satisfactory: minimum grade of C
OR	
d. SO 100 Intro to Sociology	Satisfactory: minimum grade of C
e. CS 124 Health Informatics	Satisfactory: minimum grade of C
f. HE 120 Health & Nutrition	Satisfactory: minimum grade of C

If the required grade is not met in a prerequisite course, the student will continue as a nursing major. **Only one opportunity will be given to retake the course at WSU only**. Progression in the nursing courses depends on satisfactory completin of the course.

Nursing Courses: Track I, II and III

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

(Open only to students who have been accepted into the undergraduate nursing major)

TRACK I (Undergraduate)

NU 200 Introduction to Professional Nursing I

Prerequisites: BI 161, BI 162; BI 206; CH 112; EN 101, EN 102
Corequisites: NU 205

Philosophy and conceptual framework of the program is introduced. Nursing theory, history and professional practice roles are presented. Medical terminology is introduced as well as introduction to medication calculations.
Offered Fall semester every year. 5 credits.

NU 205 Pathophysiology

Prerequisites: BI 161, BI 162; BI 206; CH 112; EN 101, EN 102
Corequisites: PS 210, NU 200

Students will develop beginning principles in providing nursing care for individuals with altered pathophysiological responses
Offered Fall semester every year. 3 credits.

NU 210 Introduction to Professional Nursing II

Prerequisite: NU 200, NU 205, PS 101, SO 100
Corequisites: HE 120, NU 215, CS 124

Health of individuals and families is assessed. Communication, physical assessment, nursing process and other skills for professional practice are introduced. Medication calculations continue and the administration of medication is introduced. Lecture, an on-campus laboratory on physical assessment and off-campus clinical experiences in sub-acute care agencies are included in this course.
Offered Spring semester every year. 5 credits.

NU 215 Pharmacology

Prerequisite: NU 200, NU 205, PS 101, SO 100
Corequisites: HE 120, NU 210, CS 124

Students will learn underlying principles of safe and competent medication administration.
Offered Spring semester every year. 3 credits.

NU 310 Nursing Science I

LASC—Writing Across the Curriculum

Prerequisites: NU 210, NU 215; HE 120, EN 102, CS 124, MA 150, BI 206
Corequisite: NU 430
Students will apply the nursing process when caring for the childbearing family and adult medical-surgical patients. Concepts of wellness, disease and health behaviors will be examined as the nursing process is operationalized in the care of adult medical-surgical patients and the childbearing family. Lecture and off-campus clinical experiences in maternal-child health nursing and medical-surgical nursing are included in this course.
Offered Fall semester every year. 9 credits.

NU 315 Group Communication Seminar I

Prerequisite: NU 310, NU 430
Corequisite: NU 340

The focus of this course is on effectively assessing, analyzing and problem solving the processes of group interactions with peers in the classroom in order to integrate this information into various health care settings.
Offered Spring semester every year. 1 credit.

NU 340 Nursing Science II

LASC—Writing Across the Curriculum; Diversity Across the Curriculum

Prerequisites: NU 310, NU 430, EN 102

Corequisite: NU 315

Concepts of wellness, disease, and health behaviors are examined as the nursing process is operationalized in the care of pediatric patients and acutely ill medical-surgical patients. Lecture and an off-campus clinical experience are included in this course.
Offered Spring semester every year. 9 credits.

NU 415 Group Communication Seminar II

Prerequisites: NU 315 and NU 340

Corequisite: NU 440

The independent and interdependent role of the professional nurse as an agent of change is examined.
Offered Fall semester every year. 1 credit.

NU 430 Research Seminar in Nursing

LASC - Quantitative Literacy Across the Curriculum

Prerequisite: MA 150

Corequisites: NU 310

The focus is on the development of the student as a consumer of nursing research and the utilization of research findings in practice.

Offered Fall semester every year. 3 credits.

NU 440 Nursing Science III

Prerequisites: NU 315 and NU 340

Corequisite: NU 415

Students practice professional nursing with acutely ill adults in mental health care settings and identify multiple aspects of community and public health issues. Critical thinking and decision making skills are developed and applied. Lecture and off-campus clinical experiences are included in this course.
Offered Fall semester every year. 8 credits.

NU 450 Leadership in Nursing

Prerequisites: NU 415, NU 440

Corequisites: NU 460, NU 470

This course focuses on theories of leadership, management, delegation and supervision, which supports the knowledge, skill and values integrated by the nurse into professional leadership behavior. Current trends in nursing and in research relating to nursing leadership and management are explored.
Offered Spring semester every year. 3 credits.

NU 460 Nursing Science IV

Prerequisite: NU 415, NU 440

Corequisites: NU 450, NU 470

The focus is on the study and practice of nursing directed at health promotion/restoration of clients with chronic person/environment disunity. Complex health problems are studied in classrooms and clinical settings. Preceptorship opportunities are available to eligible students.
Offered Spring semester every year. 8 credits.

NU 470 Nursing: Capstone

Prerequisites: NU 415, NU 440

Corequisites: NU 450, NU 460

This two (2) credit course focuses on Evidence Based Practice in which students will demonstrate the integration and synthesis of all previous learning in the nursing major.
Offered Spring semester every year. 2 credits.

NU 480 Independent Study

Prerequisite: Consent of Department

Opportunities for students to engage in special studies in nursing according to individual interests and faculty availability.
Offered every year. 1-6 credits.

TRACK II (RN-TO-BS)

NU 332 Transition to Professional Nursing

LASC—Writing Across the Curriculum

Prerequisite: EN 102

This course focuses on nursing knowledge and theory as foundations of professional nursing. The elements of the Department of Nursing's conceptual nursing practice model are analyzed and examined in terms of nursing, diagnostic, and teaching-learning processes. Legal, ethical and environmental factors are studied in relation to their impact on person/environment unity.
(3 credits)

NU 342 Health Assessment

The nursing process is used as the organizing framework to identify person/environment unity of individuals. A variety of skills and theories relevant to professional nursing practice are utilized. The student will develop an increased knowledge base and skills related to performing a complete physical examination of the adult and pediatric client.
(4 credits)

NU 430 Nursing Research

Prerequisite: MA150

The focus of this course is on the student learning the research process and the utilization of research in practice.
(3 credits)

NU 432 Advancing Nursing Perspectives in Chronic Illness

The focus of this course is on the study and practice of nursing directed at heath promotion/prevention/ restoration of clients with chronic person/environment disunity. Theories and environmental factors that influence health promotion, prevention and restoration of particular client populations are examined. The nursing practice model is further applied to maximize person/environmental unity of clients with chronic alterations in functional patterns.
(9 credits)

NU 452 Professional Nursing Leadership in Organizations

The course focuses on leadership management, delegation and supervision, which supports the knowledge, skills and values integrated by the professional RN leadership role in organizations.
(3 credits)

NU 472 Community Nursing Capstone Course

The focus of this course is on the study and practice of community-oriented nursing. Theories and environmental factors which influence the health of communities are analyzed. The application of the nursing process and diagnostic reasoning in promoting the health of individuals, families and communities is emphasized. Clinically students collaborate with preceptor and faculty to integrate community/public health nursing theory into practice.
(9 credits)

TRACK III (Undergraduate) LPN-BS

NU 203 Transition from LPN to Professional Nursing

This course focuses on the transition from the Licensed Practical Nurse to the Baccalaureate prepared registered nurse. Emphasis will be placed on the Massachusetts Board of Registration in Nursing Nurse Practice Act in context of legal accountability and responsibility. Emphasis will be placed on the changing and expansion of critical thinking as a Registered Nurse. Included will be an exploration of the RN's role within the interdisciplinary health care team.

NU 205 Pathophysiology (refer to Track I course description)

NU 213 Health Assessment

This course provides a foundation for nursing assessment of the adult client Interviewing techniques, health history taking, physical assessment and critical thinking skills are developed. Normal findings and deviations from normal are explored. Changes related to age are discussed. A clinical component allows students to apply classroom knowledge.

NU 215 Pharmacology (refer to Track I course description)

NU 342 Nursing Care of the Medical Surgical Patient Bridge I

This course provides the LPN with an understanding of the medical-surgical patient from the perspective of the registered nurse. Nursing process and the expansion of critical thinking to the level of the registered nurse are stressed. This course places emphasis on the professional nurse's care of the patient with complex medical-surgical issues in the acute care clinical setting.

NU 343 Nursing Care of the Family: Bridge II

This course provides the LPN with an introduction to the role of the bachelor's prepared registered nurse in the care of the child-bearing family, family health promotion, high risk maternal-newborn care and clinical decision making. This course places emphasis on the multisystem pediatric and family-centered issues, complex nursing assessment with community and hospital based patients and families.

NU 430 Research Seminar in Nursing (refer to Track I course description)

NU 440 Nursing Science III

Prerequisites: NU 315 and NU 340

Corequisite: NU 415

Students practice professional nursing with acutely ill adults in mental health care settings and identify multiple aspects of community and public health issues. Critical thinking and decision making skills are developed and applied. Lecture and off-campus clinical experiences are included in this course.
Offered Fall semester every year. 8 credits.

NU 450 Leadership in Nursing

Prerequisites: NU 415, NU 440

Corequisites: NU 460, NU 470

This course focuses on theories of leadership, management, delegation and supervision, which supports the knowledge, skill and values integrated by the nurse into professional leadership behavior. Current trends in nursing and in research relating to nursing leadership and management are explored.
Offered Spring semester every year. 3 credits.

NU 460 Nursing Science IV

Prerequisite: NU 415, NU 440

Corequisites: NU 450, NU 470

The focus is on the study and practice of nursing directed at health promotion/restoration of clients with chronic person/environment disunity. Complex health problems are studied in classrooms and clinical settings. Preceptorship opportunities are available to eligible students.
Offered Spring semester every year. 8 credits.

NU 470 Nursing: Capstone

Prerequisites: NU 415, NU 440

Corequisites: NU 450, NU 460

This two (2) credit course focuses on Evidence Based Practice in which students will demonstrate the integration and synthesis of all previous learning in the nursing major.
Offered Spring semester every year. 2 credits.

Occupational Studies
Department of Occupational Therapy

Faculty

Andrea R. Bilics, Professor (1998)
B.S., University of Pennsylvania; M.Ed., Ph.D., Boston College

Jacqueline R. Brennan, Assistant Professor (1987)
B.S., University of Connecticut; M.A. Assumption College; M.S., Boston University

Patricia A. Donovan, Assistant Professor (2000)
B.S., Framingham State College; M.S., Boston University; Ed.D., Argosy University

Joanne Gallagher, Professor (1996), Department Chair
B.S., Quinnipiac College; M.S., Florida International University; Ed.D., Johnson & Wales University

Patricia C. George, Academic Fieldwork Coordinator (1998)
B.S., M.S., Worcester State College

Margaret D. Hart, Professor (1997)
B.A., Ithaca College; M.S., Boston University; Ph.D., University of Massachusetts Boston

Bachelor of Science Occupational Studies Program

The Bachelor of Science in Occupational Studies program offers a stimulating and challenging curriculum that blends professional coursework with a traditional liberal arts education. Students begin by learning the philosophy and founding principles of occupational therapy along with acquiring a thorough understanding of biological, psychological, and social aspects of human beings. In upper division coursework, students learn to apply this knowledge and to develop occupational therapy clinical reasoning skills for evaluation of and intervention with persons across the lifespan. Between the junior and senior years, students with good academic standing are eligible to apply for admittance to the Master of Occupational Therapy Program. Acceptance and completion of the undergraduate program in occupational studies does not guarantee admission into the Master of Occupational Therapy Program. All students applying for conditional graduate standing in the MOT Program need to have a minimum of a 3.0 GPA in OT prerequisite and major courses. Only graduates of the Master of Occupational Therapy Program are eligible to sit for the national examination administered by National Board for Certification in Occupational Therapy.

A passing score on this examination allows the graduate to apply for a license to practice that is required by most states within the United States, including Massachusetts. For further information regarding certification contact: NBCOT; 800 Frederick Avenue, Suite 200, Gaithersburg, Maryland, 20877-4150; (301) 990-7979; www.nbcot.org.

The combined Bachelor of Science in Occupational Studies and Master of Occupational Therapy Program is accredited by the Accreditation Council for Occupational Therapy Education. For further information regarding accreditation contact: ACOTE; 4720 Montgomery Lane, Suite 200, Bethesda, Maryland, 20814-3449; (301) 652-2682; www.acoteonline.org.

Program Application Process

Application to enter the BSOS Program as a first-year student or external transfer student is made through the Admissions Office at the time of application to Worcester State University. Students are encouraged to apply early due to limited enrollment. Current Worcester State University students (internal transfers) who wish to apply for internal transfer into the BSOS Program must submit an application directly to the Occupational Therapy Department by February 1st.

First-year students are admitted on the basis of SAT scores, high school rank, and coursework relevant to the major. External and internal transfer students are considered for admission based on minimum qualifications (overall grade-point-average of a 2.75 and grades of C or better in all prerequisite courses, Anatomy and Physiology I & II, General Psychology) and space availability.

All accepted transfer students are required to complete OT 101 and OT 102 during the summer before progressing onto sophomore level courses in the Fall semester.

Any individual who has been convicted of a felony or misdemeanor involving an act likely to affect professional practice should meet with the Department Chair prior to applying to the program. Prior incidents may affect eligibility for fieldwork, certification, and employment. A CORI check and/or drug test is typically required prior to Fieldwork Level I and Level II placement.

Policies

- All undergraduate occupational therapy prerequisite and major courses must be completed with a grade of C or better.
- Courses must be taken in the prescribed sequence unless an exception is granted by the Department Chair.
- All undergraduate and graduate level coursework must be successfully completed before beginning Level II Fieldwork.
- The second Level II Fieldwork experience must be completed within 12 months of academic coursework.
- Eligibility to sit for the national certification examination requires successful completion of six-months of Level II Fieldwork.

Requirements for the Major

The following courses are required:

OT Prerequisite Courses for the BSOS (27-28 credits)

BI 161	Anatomy & Physiology I (4 credits)
BI 162	Anatomy & Physiology II (4 credits)
BI 271	Kinesiology (3 credits)
BI 315	Neuroscience (4 credits)
PS 101	General Psychology I (3 credits)
PS 210	Developmental Psychology (3 credits)
PS 322	Psych of Aging (3 credits)
MA 150	Statistics I (3 credits) ***or*** PS 275 Psychological Statistics (4 credits)

OT Major Courses for the BSOS (53 credits)

OT 101	Introduction to Occupational Studies of Wellness/Disability (3 credits)
OT 102	Occupational Studies of Wellness/Disability Groups (3 credits)
OT 203	Occupational Therapy Theories (3 credits)
OT 211	Kinesiology Lab (1 credit)
OT 301	Psychosocial Wellness/Disability (2 credits)
OT 302	Psychosocial Therapeutic Approaches (3 credits)
OT 304	Psychosocial Therapeutic Approaches Lab (2 credits)
OT 312	Physiological Wellness/Disability (2 credits)
OT 313	Physiological Therapeutic Approaches (3 credits)
OT 317	Research I (3 credits)
OT 318	Physiological Therapeutic Approaches Lab (2 credits)
OT 401	Occupational Performance & Context for Elders (2 credits)
OT 402	Therapeutic Approaches for Elders (3 credits)
OT 403	Therapeutic Approaches Lab for Elders (2 credits)
OT 404	Assistive Technology I (3 credits)
OT 407	Research II (3 credits)
OT 421	Occupational Performance & Context for Children/Adolescents (2 credits)
OT 423	Therapeutic Approaches Lab for Children/Adolescents (2 credits)
OT 424	Assistive Technology II (3 credits)
OT 426	Organizational and Professional Issues I (3 credits)
OT 427	Therapeutic Approaches for Children/Adolescents (3 credits)

OT Major Courses for the MOT (33 credits)

OT 903	Clinical Reasoning I (3 credits)
OT 905	Clinical Reasoning II (3 credits)
OT 906	Global Health Issues (3 credits)
OT 908	Community Health (3 credits)
OT 928	Thesis Seminar I (3 credits)
OT 929	Thesis Seminar II (3 credits)
OT 930	Thesis Seminar III (3 credits)
OT 931	Organizational and Professional Issues II (3 credits)
OT 920	Physical Disabilities Fieldwork II (3 credits)
OT 921	Psychosocial Fieldwork II (3 credits)
OT 933	Assessment and Evaluation Across the Lifespan (3 credits)

Department of Occupational Therapy: Occupational Studies
Sample Timeline for Completion of Degree

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
OT 101	Introduction to Occupational Studies	3
BI 161	Anatomy and Physiology I	4
PS 101	General Psychology (HBS*)	3
EN 101	English Composition I	3
LASC	First-Year Seminar	3
	Semester Subtotal	**16**

Semester Two		
Course No.	**Course Name**	**Credits**
OT 102	Occupational Studies of Wellness/Disability Groups	3
BI 162	Anatomy and Physiology II (NSP*)	4
EN 102	English Composition II	3
LASC	Distribution Elective (Constitutions)	3
LASC	Distribution Elective (QR*)	3
	Semester Subtotal	**16**
Comments	EN 101 with EN 102 satisfies LASC Writing. By the end of Semester two term, students must have an Accuplacer score of 4 to take MA 150. Alternative in Fall 2 is PS 275.	

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
OT 203	Occupational Therapy Theories	3
PS 210	Developmental Psychology (HBS*)	3
BI 315	Neuroscience	4
MA 150	Statistics I or PS 275 Psychological Statistics (QR*)	3-4
LASC	Distribution Elective (USW*)	3
	Semester Subtotal	**16-17**

Semester Four		
Course No.	**Course Name**	**Credits**
OT 211	Kinesiology Lab	1
PS 322	Psychology of Aging	3
BI 271	Kinesiology (Lecture) (NSP*)	3
LASC	Distribution Elective (GP*)	3
LASC	Distribution Elective (WAC*)	3
	Semester Subtotal	**13**

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
OT 301	Psychosocial Wellness/Disability	2
OT 302	Psychosocial Therapeutic Approaches	3
OT 304	Psychosocial Therapeutic Approaches Lab	2
OT 317	Research 1	3
LASC	Distribution Elective (CA*)	3
LASC	Distribution Elective (TLC*)	3
	Semester Subtotal	**16**

Semester Six		
Course No.	**Course Name**	**Credits**
OT 312	Physiological Wellness/Disability	2
OT 313	Physiological Therapeutic Approaches	3
OT 318	Physiological Therapeutic Approaches Lab	2
LASC	Distribution Elective (ICW*)	3
LASC	Distribution Elective (QLAC*)	3
LASC	Distribution Elective (DAC*)	3
	Semester Subtotal	**16**

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
OT 401	Occupational Performance and Context for Elders	2
OT 402	Therapeutic Approaches for Elders	3
OT 403	Therapeutic Approaches Lab for Elders	2
OT 404	Assistive Technology I	3
OT 407	Research II	3
SELECT	General Elective	3
	Semester Subtotal	**16**

Semester Eight		
Course No.	**Course Name**	**Credits**
OT 421	Occupational Performance and Context for Children/Adolescents	2
OT 427	Therapeutic Approaches for Children/Adolescents	3
OT 423	Therapeutic Approaches Lab Children/Adolescents	2
OT 424	Assistive Technology II	3
OT 426	Organizational and Professional Issues I (CAP)	3
	Semester Subtotal	**13**

TOTAL CREDITS= 120-121

Note: The sequence of LASC courses marked with * is a suggestion but serves as a reminder that LASC designated courses must be taken to satisfy the LASC requirements.

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

Occupational Therapy Courses

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

OT 101 Introduction to Occupational Studies of Wellness/Disability

Introduction to occupational therapy history, philosophy, wellness/disability continuum, contexts, occupations, occupational performance, professionalization and clinical reasoning.
Offered every year. 3 credits

OT 102 Occupational Studies of Wellness/Disability Groups

Exploration of professional themes: philosophy, wellness/disability continuum using groups, occupational performance and activity, professionalization and clinical reasoning.
Offered every year. 3 credits

OT 193 Special Topics in Occupational Therapy for First-Year Students

All "193" courses are approved for LASC but may vary by section. See current course listing for specific LASC area approval.

Introductory level course covering topics of special interest to first-year students. Offered only as a First-Year Seminar.
Offered every year. 3 credits.

OT 203 Occupational Therapy Theories

Investigation of theories basic to occupational therapy, related to occupation, individual and context. Includes current and developing models of practice.
Offered every year. 3 credits

OT 211 Kinesiology Lab

Concurrent with BI 271

Opportunities to develop skills that apply kinesiology to occupational therapy practice.
Offered every year. 1 credit

OT 301 Psychosocial Wellness/Disability

Concurrent with OT 302 and OT 304

Historical themes of the profession, wellness/illness/disability continuum, occupation and context as it applies to psychosocial performance in life roles.
Offered every year. 2 credits

OT 302 Psychosocial Therapeutic Approaches

Occupational performance and context, professionalization, and clinical reasoning will be applied to practice models when addressing psychosocial health and illness.
Offered every year. 3 credits

OT 304 Psychosocial Therapeutic Approaches Lab

Directed observation and participation in the clinical application of theories and methods of occupational therapy intervention with psychosocial disorders. Includes Fieldwork I.
Offered every year. 2 credits

OT 312 Physiological Wellness/ Disability

Concurrent with OT 313 and OT 318

Historical themes of the profession, wellness/illness/disability continuum, occupation and context as it applies to physiological performance in life roles.
Offered every year. 2 credits

OT 313 Physiological Therapeutic Approaches

Occupational performance and context, professionalization, and clinical reasoning will be applied to practice models when addressing physiological health and illness.
Offered every year. 3 credits

OT 317 Research I

Prerequisite: MA 150 or PS 275

Course examines measurement issues, concerns and tools; and why and how to use evidence in practice.
Offered every year. 3 credits

OT 318 Physiological Therapeutic Approaches Lab

Directed observation and participation in the clinical application of theories and methods of occupational therapy intervention with physiological disorders. Includes Fieldwork I.
Offered every year. 2 credits

OT 400 Special Topics

Selected areas of interest to students and instructor. Topic, prerequisites and instructor are announced in advance.
Offered every year. 1-3 credits

OT 401 Occupational Performance and Context for Elders

Concurrent with OT 402, OT 403 and OT 404

The wellness/illness/disability continuum will be applied to occupational performance in life roles for the geriatric population.
Offered every year. 2 credits

OT 402 Therapeutic Approaches for Elders

Occupational therapy strategies for elders across the wellness/illness/disability continuum with emphasis on occupational performance/context and clinical reasoning.
Offered every year. 3 credits

OT 403 Therapeutic Approaches Lab for Elders

Experiential learning with assessments and intervention approaches for elders. Includes Fieldwork 1 experience in various sites off campus.
Offered every year. 2 credits

OT 404 Assistive Technology I

Assistive technology related to the needs of the adult and geriatric populations will be explored
Offered every year. 3 credits

OT 407 Research II

Course examines research design, quantitative and qualitative, human subject protection and program evaluation. Students will develop a research proposal.
Offered every year. 3 credits

OT 411 Occupational Therapy International Service Learning Experience

Instruction in occupational. therapy methods with an experiential component providing intervention to an underserved population in a foreign country.
Offered every year. 2 credits.

OT 421 Occupational Performance and Context for Children/Adolescents

Concurrent with OT 423, OT 424 and OT 427

Wellness/illness/disability continuum will be applied to performance in life roles related to the child and adolescent populations.
Offered every year. 2 credits

OT 423 Therapeutic Approaches Lab for Children/Adolescents

Experiential learning with assessments and intervention approaches; professional oral and written communication skill development. Includes Fieldwork I experience.
Offered every year. 2 credits

OT 424 Assistive Technology II

Assistive technology applied to the occupational performance and context of child and adolescent populations.
Offered every year. 3 credits

OT 426 Organizational and Professional Issues I

LASC - Major Capstone

Introduction to principles of organization, administration and management applied to the delivery of occupational therapy services in various practice settings. Work relationships, ethical issues and laws influencing practice will also be discussed.
Offered every year. 3 credits

OT 427 Therapeutic Approaches for Children/Adolescents

Occupational therapy strategies for child and adolescent populations across wellness/illness/disability continuum with emphasis on occupational performance and context.
Offered every year. 3 credits

Physical Education
Department of Health Sciences

The physical education program offers minors in Sport Coaching and Health Fitness and a wide variety of activities including basketball, dance, fitness, golf, sailing, self defense, stress management, tennis, volleyball, weight training, yoga, and individual, dual, and team sports.

Sport Coaching Minor: 18 credits

Coaches have an exceptional opportunity to exert a strong positive influence on players and to that end the minor will adhere to the National Association for Sport and Physical Education (NASPE) coaching standards that emphasize ethics, safety, team play and leadership. Courses will also address the need for coaches to produce the safest environment for players and others and to avoid litigation by adhering to the objectives of the National Federation of State High School Association (NFHS).

Required Courses:

PE	175	Principles of Coaching	3 credits
PE	220	Survey of Athletic Training*	3 credits

Elective Courses:

HC	228	Health Ethics	3 credits
HE	120	Health and Nutrition	3 credits
HE	285	Drugs and Society	3 credits
PE/SO	190	Sport and Society	3 credits
PE	210	Foundations of Strength and Conditioning	3 credits
PE	240	Athletic Programs	3 credits
PE/HE	260	First Aid: Advanced Theory and Skills	3 credits
PE	420	Practicum in Health/Fitness	3 credits

*prerequisites: BI 161 Anatomy and Physiology, 4 credits, **and** either HE 170 Humans in Motion, 3 credits, **or** BI 271 Basic Kinesiology, 3 credits.

A minimum grade of 2.0 must be earned in required and elective courses. Prerequisites must average a minimum of 2.0.

Health Fitness Minor: 18 credits

The minor encompasses both the knowledge and skills required in the growing field of Health Fitness. Applications focus on improving health and fitness at both the individual and population levels.

Required Courses:

HE 120	Health and Nutrition	3 credits
PE 210	Foundations of Strength and Conditioning*	3 credits
PE 220	Survey of Athletic Training*	3 credits

Elective Courses: 9 credits

PE/HE 150	Health and Physical Education for the Teacher	3 credits
PE 190	Sport and Society	3 credits
PE 240	Athletic Programs	3 credits
PE/HE 260	First Aid: Advanced Theory and Skills	3 credits
PE/HE 275	Fitness for Life	3 credits
PE/HE 280	Stress Management	3 credits
HE 285	Drugs and Society	3 credits
PE 420	Practicum in Health Fitness	3 credits

*prerequisites: BI 161 Anatomy and Physiology, 4 credits, **and** either HE 170 Humans in Motion, 3 credits, **or** BI 271 Basic Kinesiology, 3 credits.

A minimum grade of 2.0 must be earned in required and elective courses. Prerequisites must average a minimum of 2.0.

Physical Education Courses

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

PE 100 Physical Education Activity Courses

Activities include basketball, dance, fitness, golf, racquetball, relaxation, sailing, self-defense, softball, tennis, volleyball, weight training, yoga.
Offered every year. 1 credit.

PE/HE 140 Introduction to Creative Arts and Health

An experiential and didactic introduction to making connections between the arts process/product and health.
Offered every 3 years. 3 credits.

PE/HE 150 Health and Physical Education for the Teacher

The planning, development, implementation and evaluation of comprehensive health education programs.
Offered every year. 3 credits.

PE 175 Principles of Coaching

The values, relationships, and skills necessary to coach children and young adults in competitive athletics.
Offered every 2 years. 3 credits.

PE 190 Sport and Society

Analysis of sport as a social system; the implications of sport within interrelational contexts of other social systems.
Offered every 2 years. 3 credits.

PE 205 Coaching Team Sports for Men

The techniques and strategies of coaching basketball and baseball.
Offered every 2 years. 3 credits.

PE 210 Foundations of Strength and Conditioning

Prerequisites: BI 161 and HE 170 or BI 271

An introduction to the principles of functional training that meet sport specific needs of athletes.
Offered every year. 3 credits.

PE 215 Coaching Tennis

Selecting, training, strategies and teaching techniques in developing a tennis program.
Offered every year. 3 credits.

PE 220 Survey of Athletic Training

Prerequisites: BI 161 and HE 170 or BI 271

General overview of athletic training with a clinical approach to prevention, evaluation and rehabilitation of injuries common to athletes.
Offered every 2 years. 3 credits.

PE 240 Athletic Programs

Financing, scheduling, administering, and evaluating.
Offered every year. 3 credits.

PE/HE 260 First Aid: Advanced Theory and Skill

Common emergencies, cardiopulmonary resuscitation, auto extrication, and emergency childbirth. Opportunity for instructor rating.
Offered every 3 years. 3 credits.

PE/HE 275 Fitness for Life

Knowledge of health-related fitness components and their effect on total wellness; emphasis on developing personalized fitness programs.
Offered every year. 3 credits.

PE/HE 280 Individualized Stress Management and Relaxation

Strategies and techniques for increasing stress resistance based on psychophysiological research.
Offered every year. 3 credits.

PE 300 Fitness Appraisal and Exercise Prescription

Prerequisites: BI 161, BI 162, PE 275

Administration and interpretation of health-fitness tests, formulation of individualized exercise prescriptions and methods of teaching fitness programs.
Offered every year. 3 credits.

PE 400 Independent Study in Physical Education/Coaching

Prerequisite: Consent of department

Opportunity to engage in research in an area of special interest not covered in elective course offerings.
Offered every year. 1 - 6 credits.

PE 410 Field Experience in Physical Education/Coaching

Prerequisite: Consent of department

Organizing and conducting either physical education or coaching activities at the elementary or secondary level. (40 hours for each credit)
Offered every year. 3-6 credits.

PE 415 Special Topics in Physical Education

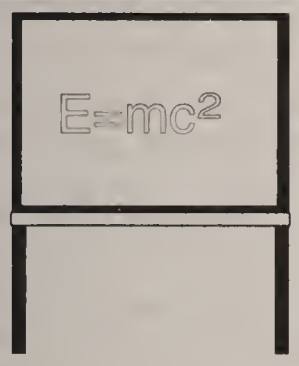
Prerequisite: Permission of department and instructor

Covers special interest topics.
Offered every semester. 3 credits

PE 420 Practicum in Health Fitness

Prerequisite: Consent of department

Opportunity to gain practical experience under supervision in a health fitness field placement.
Offered every year. 3 credits.



Physics

Department of Earth, Environment and Physics

Faculty

William A. Belanger, Associate Professor (1967)
B.S., Ed.M., Worcester State College; M.N.S., Worcester Polytechnic Institute

Patricia A. Benjamin, Associate Professor (2001), Department Chair
B.A., University of Oregon; M.L.S., University of Maryland; M.A., Ph.D., Clark University

Matthias Dietrich, Assistant Professor (2014)
M.A., Ph.D., University of Göttingen, Germany

Francisco J. Lamelas, Associate Professor (2005)
B.S., M.S., University of Wisconsin, Milwaukee; M.S., Ph.D., University of Michigan

Sudha R. Swaminathan, Associate Professor (2005)
A.B., (Physics), A.B., (Mathematics) Mount Holyoke College;
M.S., Ph.D., University of Michigan

Requirements for a Minor in Physics: 18 credits in Physics including

PY 221 & PY 222	General Physics I and II or
PY 241 & PY 242	Physics I and II

A physics minor is very useful in many technical fields, since the study of physics develops an understanding of basic principles, mathematical modeling, and practical applications. Specific areas where a physics background is useful include imaging techniques in medicine and biology, analytical instrumentation in chemistry, remote-sensing techniques in the geosciences, and the development of realistic physical models in computer science and mathematics.

Physics Courses

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

PY 101 Introduction to Astronomy

LASC—Natural Systems and Processes

The tools of the astronomer. The nature of stars, their location and cosmology. Planets and the solar system.
Offered every year. 3 credits.

PY 105 Concepts in Physics I

LASC—Natural Systems and Processes (Laboratory Course)
Prerequisite: Accuplacer code 3 or above

Concepts and physical principles of motion, force, mechanical work, energy, and momentum. Torque and angular momentum. Fluids, heat, and thermodynamics. Two hours lecture and one two-hour laboratory.
Offered every year. 3 credits. Credit will not be awarded for more than one of PY 105, PY 221, and PY 241.

PY 106 Concepts in Physics II

LASC—Natural Systems and Processes

Prerequisite: Accuplacer code 3 or above

Electrostatics, including electric forces and electric potential. Simple circuits, electrical power, and generators. Magnetic fields and forces, light, and relativity.
Offered every year. 3 credits. Credit will not be awarded for more than one of PY 106, PY 222, and PY 242.

PY 112 Physics in Art

LASC—Natural Systems and Processes (Laboratory Course); Quantitative Literacy Across the Curriculum; Writing Across the Curriculum

Prerequisite: Accuplacer code 3 or above; EN 102

Concepts in optics and modern physics applied to the analysis of paintings, conservation of art objects and detection of forgeries. Three hours lecture and two hours laboratory.
Offered every year. 4 credits.

PY 114 Physics of Waves

LASC—Natural Systems and Processes; Quantitative Literacy Across the Curriculum

Prerequisite: Accuplacer code 3 or above

Wave phenomena, including water waves, sound, acoustics, musical instruments, optics and quantum mechanics. Analysis of propagation, power, scattering and interference.
Offered every year. 3 credits.

PY 193 Special Topics in Physics for First-Year Students

All "193" courses are approved for LASC but may vary by section. See current course listing for specific LASC area approval.

Introductory level course covering topics of special interest to first-year students. Offered only as a First-Year Seminar.
Offered every year. 3 credits.

PY 221 General Physics I

LASC—Natural Systems and Processes (Laboratory Course); Quantitative Literacy Across the Curriculum

Prerequisite: MA 180 or MA 190 (preferred)

Physics with algebra and trigonometry, including kinematics, dynamics, energy, momentum, gravity, oscillators, waves and heat. Three hours lecture and two hours lab.
Offered every year. 4 credits. Credit will not be awarded for more than one of PY 105, PY 221, and PY 241.

PY 222 General Physics II

LASC—Natural Systems and Processes (Laboratory Course)

Prerequisite: PY 221

Physics with algebra and trigonometry including electric and magnetic fields, resistance, capacitance, inductance, reflection, refraction, interference, relativity and quantum physics. Three hours lecture and two hours laboratory.
Offered every year. 4 credits. Credit will not be awarded for more than one of PY 106, PY 222, and PY 242.

PY 240 Optics

Prerequisite: One semester of college-level physics and MA 190, or consent of the instructor.

Image formation with mirrors and lenses. Interference, diffraction, dispersion, and polarization. Lasers. Microscopes and spectrometers. Cameras and image processing.
Offered every 2 years. 3 credits.

PY 241 Physics I (Mechanics)

LASC—Natural Systems and Processes (Laboratory Course); Quantitative Literacy Across the Curriculum

Prerequisite: One semester of calculus (may be taken concurrently).

Physics with calculus, including kinematics, dynamics, energy, momentum, gravity, oscillators, waves, and heat. Three hours lecture and two hours lab.
Offered every year. 4 credits. Credit will not be awarded for more than one of PY 105, PY 221, and PY 241.

PY 242 Physics II (Electricity, Magnetism and Optics)

LASC—Natural Systems and Processes (Laboratory Course)

Prerequisite: One semester of calculus, PY 241.

Physics with calculus including electric and magnetic fields, resistance, capacitance, inductance, reflection, refraction, interference, relativity and quantum physics. Three hours lecture and two hours lab.
Offered every year. 4 credits. Credit will not be awarded for more than one of PY 106, PY 222, and PY 242.

PY 297 Selected Topics in Physics

Prerequisite: Consent of instructor

Lecture or laboratory course in a selected area in physics. Topic announced in advance.
1-6 credits.

PY 310 Modern Physics

Prerequisite: PY 222 or PY 242, and one semester of calculus.

Special relativity. The wave nature of matter, introductory quantum mechanics, and atomic physics. Condensed matter. Radioactivity. Nuclear and particle physics.
Offered every 2 years. 3 credits.

PY/CH 360 Introduction to Materials Science

Prerequisites: CH 120, CH 121, and either PY 221, PY 222 or PY 241, PY 242

Physical structure of solids. Electrical, magnetic, thermal and optical properties of solids, liquids and soft matter. Structure-property relationships in materials.
Offered every 2 years. 3 credits.

PY/CH 370 Introduction to Nuclear Science

Prerequisites: CH 120, CH 121, and either PY 221, PY 222 or PY 241, PY 242

Foundations of nuclear science. Topics include nuclear structure and forces, radioactive decays, nuclear reactions, and modern applications.
Offered every other year. 3 credits.

PY 410 Independent Study In Physics

Prerequisite: Consent of department

Opportunity for advanced students to pursue topics of special interest involving extensive reading, experimentation, and research.
Offered every year. 1-6 credits.

PY 460 Physics Internship

Prerequisite: Consent of Physics faculty

Advanced students assigned to external public or private agency, working under agency and physics faculty supervision.
Offered every year. 1-4 credits.

PY/BI 451 Nuclear Instrumentation I

Prerequisite: Consent of NMT coordinator

The structure, functions, and interactions of particulate and non-particulate radiations with matter, detection, calibration, dosage, and statistical methods.
Offered every year. 4 credits.

PY/BI 452 Nuclear Instrumentation II

Prerequisite: Consent of NMT coordinator

Designed to further the skills of operating, calibrating, and performing routine maintenance on scanners, gamma cameras, well counters, and liquid scintillation counters.
Offered every year. 4 credits.

WORCESTER STATE UNIVERSITY

WORCESTER STATE UNIVERSITY

SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

Dr. Lisa Krissoff Boehm

Interim Dean of the School of Humanities and Social Sciences

LOCATION

Sullivan Academic Center
Second Floor, Room S-210

Business Administration and Economics

Communication

Criminal Justice

English

History and Political Science

Philosophy

Psychology

Sociology

Urban Studies

Visual and Performing Arts

World Languages

العربية

Arabic
Department of World Languages

Faculty

Mohamed Brahimi, Instructor (2009)
B.A., M.A., Suffolk University

Ana Pérez-Manrique, Associate Professor (2006), Department Chair
B.A. Universidad de Málaga, Spain; M.A., University of South Carolina;
Ph.D. Florida State University

Courses in Arabic are designed for students whose interests and career plans have an international or multi-ethnic focus. Students who study Arabic will develop listening, speaking, reading, and writing fluency at the beginning and intermediate levels. Arabic 101 and 102 also form part of the requirements for the Minor in Middle East Studies offered by the Department of History and Political Science.

Requirements for a Minor in Middle East Studies: 18 credits.

HI 261 Middle East History I.
HI 314 Twentieth Century Middle East History
AB 101 Arabic I
AB 102 Arabic II
6 credits recommended by advisor

Arabic Courses

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

AB 101 Beginning Arabic I

LASC—Thought, Language and Culture

Introduction to the Arabic language and cultures of the Arabic-speaking world.
3 credits

AB 102 Beginning Arabic II

LASC—Thought, Language and Culture

A continuation of AB 101, designed for students to acquire additional vocabulary, grammar, and reading ability.
3 credits

AB 210 Intermediate Arabic I

LASC—Thought, Language and Culture

Introduction in advanced rules of Arabic grammar and verb system, and in advanced writing and reading.
3 credits

AB 211 Intermediate Arabic II

LASC—Thought, Language and Culture

Reading and discussion in English of texts dealing with literature, arts, geography, history, and culture of Arabic-speaking world.
3 credits

Note: *Courses in other foreign languages such as German, Latin, Italian, Russian, Chinese and Hebrew are offered when demand warrants and staffing permits.*

Art
Department of Visual and Performing Arts

Faculty

Michael C. Hachey, Professor (1993)
B.F.A., M.F.A., Massachusetts College of Art

Stacey Parker, Associate Professor (2007)
B.F.A. Alfred University; M.F.A., Rochester Institute of Technology

Amaryllis Siniossoglou, Professor (2005)
PEP, Royal College of Art, London, England; M.F.A., University of Massachusetts Amherst; Ecole Nationale Superieure Des Beaux-Arts, Paris, France; Diplome Superieur d' Art Plastique; School of Art, Athens, Greece; Drawing and Painting School, Certificate

Catherine Wilcox-Titus, Associate Professor (2004)
B.A., University of Toronto; M.S., Simmonds College; M.A., Ph.D., Boston University

Adam Zahler, Associate Professor (2007), Department Chair
B.A., University of Vermont; M.F.A., University of Virginia

The art program's objectives are to sharpen visual perception, to deepen understanding of art history, and to teach technical skills and concepts to further the student's appreciation and creation in the visual arts. Interdisciplinary courses relate the visual arts to the arts of music and theatre, in both contemporary and historic periods.

Requirements for a Major
The newly instituted Interdisciplinary Visual and Performing Arts Major offers concentrations in Art, Music, or Theatre. *See Visual and Performing Arts Department.*

Requirements for a Minor: 18 credits, including a minimum of three credits in art history and at least one art course at the 300-level. Worcester State University reserves (with the student's permission) the right to retain some student work for demonstration and exhibition. The art program is committed to providing a foundation for students' ongoing appreciation and creative involvement in the visual arts, design, and education.

Art Courses

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

AR 100 Cross Media Studio

LASC—Creative Arts

An introduction to selected two- and three-dimensional media through the exploration of a semester-long theme such as the human figure, or forms in nature.
Offered every year. 3 credits

AR 105 Introduction to Animation

This hands-on introductory level course covers the fundamentals and aesthetics of computer animation using the Adobe AfterEffects motion graphics program.
Offered every year. 3 credits

AR 112 World Art Survey I

LASC—Creative Arts; Thought, Language and Culture
Surveys the world's major cultural achievements in the visual arts from the prehistoric period to ca1400.
Offered every year. 3 credits.

AR 113 World Art Survey II

LASC—Creative Arts; Thought, Language and Culture

Major cultural achievements in the visual arts from ca1400 to the early twentieth century.
Offered every year. 3 credits.

AR 117 Visual Design: Two-Dimensions

LASC—Creative Arts

A foundation for visual literacy through studio work utilizing such art elements as line, form, color, and texture.
Offered every year. 3 credits.

AR 122 Visual Design: Three-Dimensions

LASC—Creative Arts

A foundation for visual literacy through studio work utilizing spatial elements such as plane, mass, volume, and structure.
Offered every year. 3 credits.

AR 130 Painting I

LASC—Creative Arts
An introduction to the fundamentals of historical painting styles, techniques, and materials used, with emphasis on visual perception and expression.
Offered every year. 3 credits.

AR 140 Drawing I

LASC—Creative Arts
The development of visual awareness, technical skills, and individual expression in drawing media.
Offered every year. 3 credits.

AR 150 Life Studio I

LASC—Creative Arts
Focus on the human figure through different modes of drawing and painting. Attention to structure and anatomy and their expressive aspects.
Offered every year. 3 credits.

AR 160 Sculpture I

LASC—Creative Arts, Global Perspectives, Writing Across the Curriculum

Prerequisite: EN 102
Three-dimensional studio creations through a variety of traditional and contemporary materials. Both realistic and abstract concepts are explored.
Offered every year. 3 credits.

AR 165 Creating Cultural Forms

LASC—Creative Arts, Global Perspectives, Writing Across the Curriculum

Prerequisite: EN 102
A studio course. Concepts of art forms created by a variety of world cultures and art movements of the past and present.
Offered every year. 3 credits.

AR 193 Special Topics in Art for First-Year Students

All "193" courses are approved for LASC but may vary by section. See current course listing for specific LASC area approval.

Introductory level course covering topics of special interest to first-year students. Offered only as a First-Year Seminar.
Offered every year. 3 credits.

AR 200 History of American Art

LASC—Creative Arts; Thought, Language and Culture

A survey of the visual arts in the United States, from the Colonial Period to the present.
Offered every year. 3 credits.

AR 220 Foundations of Modern Art

LASC—Creative Arts; Thought, Language and Culture

Influential 19th century developments such as Realism and Impressionism are discussed in relationship with early 20th century art.
Offered every 2 years. 3 credits.

AR 222 Art of the 20th Century

LASC—Creative Arts; Thought, Language and Culture

Explores the major art movements and leading artists of the 20th century.
Offered every 2 years. 3 credits.

AR 225 Art Since Mid-Century

LASC—Creative Arts; Thought, Language and Culture

Explores challenges to the traditional definitions of the art object and the expanded materials, media and concepts employed by artists since 1950.
Offered every year. 3 credits.

AR 230 Printmaking

LASC—Creative Arts

Introduction to the techniques and aesthetics of monotype and relief. Prints by major artists are examined.
Offered every year. 3 credits.

AR 235 Mixed Media

Prerequisite: One studio course or consent of instructor

Advanced investigation and experimentation in the use of interrelated media and materials of two- and three-dimensions.
Offered every year. 3 credits.

AR 240 Watercolor

LASC—Creative Arts

A studio course exploring various techniques and expressive forms used by watercolorists of the past and present.
Offered every year. 3 credits.

AR 250 The Computer in Studio Art I – Book Arts

The computer as a medium for visual art. Emphasis on individual creations in book arts.
Offered every year. 3 credits.

AR 260 Visual Arts in the Schools

LASC—Creative Arts

An exploration of art materials and concepts, and their appropriate use with children. Includes studio projects, art history, and educational theory.
Offered every year. 3 credits.

AR 270 Driftwood to Dumpsters

LASC—Creative Arts; Thought, Language and Culture, Writing Across the Curriculum

Prerequisite: EN 102
Students will learn about the history and practice of making art from non-traditional materials. This is a lecture and hands-on art course.
Offered every 2 years. 3 credits.

AR 275 Gallery and Museum Studies

LASC—Creative Arts; Thought, Language and Culture

All aspects of installation and exhibition of art work in WSU gallery, including solicitation of art, publicity, display, and management.
Offered every 2 years. 3 credits.

AR/CM 285 History of Photography

LASC—Creative Arts; Thought, Language and Culture

The history of photography from 1839 to present, with attention to styles, aesthetics, technical processes, and leading practitioners.
Offered every 2 year. 3 credits.

AR 300 Painting II

Prerequisite: AR 130 or consent of instructor

Continuation of painting with emphasis on individual development through interpretive projects.
Offered every 2 years. 3 credits.

AR 302 Drawing II

Prerequisite: AR 140 or consent of instructor

Advanced projects in drawing with increasing emphasis on individual direction.
Offered every 2 years. 3 credits.

AR 305 Life Studio II

Prerequisite: AR 150 or consent of instructor

Continued drawing and painting focusing on the human figure, with emphasis on interpretive and individual development.
Offered every 2 years. 3 credits.

AR 306 Sculpture II

Prerequisite: AR 160 or consent of instructor

Further exploration of sculptural form with a diversity of materials, techniques, and expressive meaning.
Offered every 2 years. 3 credits.

AR 307 The Computer in Studio Art II – Digital Printmaking

Prerequisites: AR 250, CM 150 or permission of instructor.

Use the computer as a medium for visual art. Software programs for computer-generated image making. Focus on digital printmaking.
Offered every year. 3 credits.

AR 325 Seminar in Contemporary Art

Prerequisite: AR 225 or permission of the instructor.

In-depth study of international movements in contemporary art. Explores the intersection of art and science, abstract and figurative work, installation, site-specific, multimedia and performance art.
Offered every year. 3 credits

AR 330 Intermediate Printmaking

Prerequisite: AR 230

Continuation of relief printmaking in an individual direction using tone/color and multiple blocks.
Offered every year. 3 credits.

AR 350 Special Topics in Art

Prerequisite: One studio course or consent of instructor

A course covering topics which vary in response to specific student and faculty interest.
Offered every 3 years. 3 credits.

AR 400 Independent Study in Art

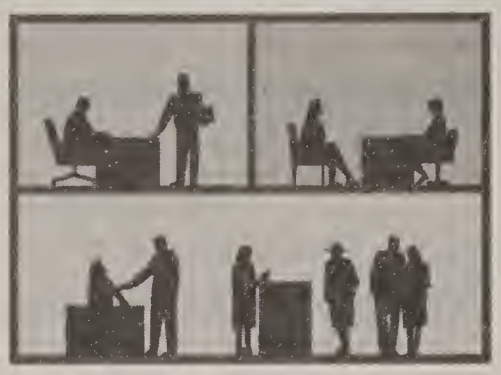
Prerequisites: Limited to art minors with minimum of 12 credits

An opportunity for further individual study in a special interest. Self-directed under supervision of faculty.
Offered every year. 3 credits.

AR 402 Internship in Art

Prerequisite: Limited to art minors

An individual experience through internship with a sponsoring community organization, professional institution or individual, i.e., museums, galleries, artists.
Offered every 3 years. 3-6 credits.



Business Administration

Department of Business Administration and Economics

Faculty

Anthony Aiello, Instructor (2014)
M.B.A., Nichols College; B.S., Worcester State College

Mary E. Clay, Assistant Professor (2012)
B.S., Fitchburg State University; M.B.A., Anna Maria College; D.B.A., Argosy University; CPA Commonwealth of Massachusetts

Laurie A. Dahlin, Professor (2001)
B.S., Nichols College; M.B.A., Assumption College;
D.B.A., Nova Southeastern University; CMA, Institute of Management Accountants

Robert C. Fink, Professor (2002)
B.A., Coe College; M.B.A., University of Iowa; D.B.A., Boston University

Robert V. Holmes, Assistant Professor (2012)
B.S., Lesley University; M.B.A., Salem State University; Ph.D., Northeastern University

Renuka Jain, Professor (1985)
M.Sc., Rajasthan University; Ph.D., McGill University

Tejendra N. Kalia, Associate Professor (2004)
B.E., Indian Institute of Technology; M.E., McGill University;
M.B.A., Anna Maria College; D.B.A., Nova Southeastern University

Wei Pang Lee, Professor (1992), Department Chair
B.A., Soochow University, Taipei, Taiwan; M.B.A., Northwest Missouri State University; Ph.D., University of Georgia, Athens

Harry Lo, Assistant Professor (2008)
Diploma in Economics, New Asia College; M.A., Ph.D., University of Georgia

Mark L. Love, Assistant Professor (2006)
B.S./B.A., M.B.A., Nichols College; CPA, Commonwealth of Massachusetts;
CFF, American Institute of Certified Public Accountants

Joan (Jay) Mahoney, Professor (2002)
B.S., North Adams State College; M.B.A., Western New England College;
Ph.D., State University of New York at Buffalo

Rodney Oudan, Professor (2005)
CIM, Chartered Institute of Marketing; PgCert, University of the West Indies, (UWI);
M.M., Cambridge College; D.B.A., Nova Southeastern University

Miriam L. Plavin-Masterman, Assistant Professor (2013)
B.S., Cornell University; M.B.A., Dartmouth College; M.A., Ph.D., Brown University

Elizabeth A. Siler, Assistant Professor (2008)
B.A., Boston University; M.B.A., Simmons College;
Ph.D., University of Massachusetts, Amherst

Maureen C. Stefanini, Professor (1967)
B.S., Ed.M., Worcester State College; M.S., Management, Massachusetts Institute of Technology; Ed.D., Boston University

James J. Swanson, Professor (1984)
B.S., Bryant College; M.B.A., University of Rhode Island; M.S.T., Bryant College;
CPA, Rhode Island

Elizabeth J. Wark, Professor (2007)
B.A., Mount Holyoke College; M.B.A., University of Massachusetts; M.A.,
Ph.D., Clark University

The Business Administration program enables participants to acquire competencies necessary to manage the human, financial and technological resources of organizations. The major in Business Administration offers three concentrations: Management, Accounting, Finance, Marketing, International Business, and Entrepreneurial Studies and Small Business Management.

Admission Requirements: Application to the department after completion of the following prerequisite courses:

CS 120	Microcomputer Applications
EC 110	Introduction to Microeconomics
EC 120	Introduction to Macroeconomics
EN 253	Business Communications
MA 150 or EC 150	Statistics
MA 202 or EC 202	Business Calculus/Introduction to Mathematical Economics

To be accepted to the major, a student must complete all prerequisite courses with a C (2.0) or better average.

Requirements for a Major in Business Administration: 48 credits in Business Administration, of which a minimum of 25 must be completed at Worcester State University.

Common Business Core: 36 credits

Lower Division

BA 200	Principles of Management and Organizational Behavior
BA 210	Fundamentals of Accounting I
BA 220	Fundamentals of Accounting II
BA 230	Managerial Accounting **or** BA 374 Cost Accounting
BA 250	Analytical Techniques in Business

Upper Division

BA 305	Organizational Dynamics
BA 312	Operations Management I
BA 316	Financial Management
BA 318	Principles of Marketing
BA 350	Business Information Systems and Applications
BA 320	Business Law I **or** BA 480 The Legal Environment of Business
BA 490	Business Strategy and Policy

BA Electives: *Other Upper Division (300-level or above)*
Business Administration courses: at least 12 credits

Note: A student may apply any two of the following EC courses towards the BA major with a concentration in either Management, International Business, Finance or toward a minor in Business Administration.

EC 205	Money, Banking and Monetary Policy
EC 301	Economic Development
EC 307	International Finance
EC 308	International Trade

Requirements for a Major in Business Administration, Concentration in Management:
The Common Business Core together with four elective courses in the field of management chosen with the assistance of the advisor from the list below:

BA 300	Organization Theory
BA 306	Human Resource Management
BA 327	Ethical Decision Making in Business
BA 380	Negotiations
BA 385	Leadership
BA 400	Management and Organizational Behavior I
BA 401	Management and Organizational Behavior II
BA 430	Administrative Practices and Management
BA 434	Management and Corporate Responsibility
BA 440	International Business and Management
BA 481	Independent Study in Business Administration
BA 482	Selected Topics in Business Administration
BA 486	Internship in Business Administration

Requirements for a Major in Business Administration, Concentration in Accounting:
The Common Business Core together with four additional courses in the field of accounting chosen with the assistance of the advisor. Typical courses include:

BA 370	Intermediate Accounting I
BA 371	Intermediate Accounting II
BA 375	Federal Income Taxes
BA 376	Auditing

Requirements for a Major in Business Administration, Concentration in Marketing:
The Common Business Core together with four additional courses in the field of marketing chosen with the assistance of the advisor.

Requirement for Major in Business Administration, Concentration in International Business:
The common Business Core together with four elective courses in the field of International Business chosen with the assistance of the advisor from the list that follows:

BA 440	International Business and Management (required)
BA 494	International Marketing
EC 307	International Finance
EC 308	International Trade
BA 482	Selected Topics in Business Administration
EC 301	Economic Development
BA 481	Independent Study
BA 486	Internship
BA 351	Managing eBusiness

Requirement for Major in Business Administration, Concentration in Finance:
The common Business Core together with four additional courses in the field of Finance chosen with the assistance of the advisor from the list that follows:

BA 404	Corporate Finance (required)
BA 355	Insurance and Risk Management
BA 414	Real Estate Investments
BA 415	Investment Analysis

BA 416	Financial Markets and Institutions
BA 486	Internship (in area related to finance)
EC 205	Money, Banking and Monetary Policy
EC 307	International Finance

Requirements for a Major in Business Administration, Concentration in Entrepreneurial Studies and Small Business Management: The Common Business Core together with two required plus two additional courses in the field chosen with the assistance of the advisor from the list below:

Two required electives BA 302 Introduction to Entrepreneurship; and BA 402 Launching the Venture - The Business Plan
Note: In addition students may choose any two remaining courses for this concentration from the following:

BA 303	Small Business Management
BA 304	Women Entrepreneurs and Leaders
BA 351	Managing eBusines
BA 420	Marketing Research
SO 420	Social Entrepreneurship

Or any courses in the field as approved by BA program chair/instructor/advisor.

Admission Requirements for a Minor in Business Administration: Application to the department after completion of the prerequisite courses. For acceptance to the minor, students must complete the three prerequisite courses with a C (2.0) or better average.

Requirements for a Minor: 27 credits as follows

Prerequisite courses (9 credits)

CS 120	Microcomputer Applications
EC 150	Statistics/or MA 150 Statistics
EC 110	Introduction to Microeconomics**/or EC 120** Introduction to Macroeconomics

Required courses (18 credits)

BA 200	Principles of Management and Organizational Behavior
BA 210	Fundamentals of Accounting I

Plus Four (4) additional BA courses

4Plus1 Program

The Department of Business Administration and Economics offers a 4Plus1 program that will allow qualified Business Administration majors with GPAs of 3.0 or higher to start taking courses in the M.S. in Management during their senior year. For more details, students should consult the graduate coordinator of the M.S. in Management program.

Undergraduate Business Administration majors who are accepted into the 4Plus1 program may take the following graduate courses (6 credits maximum) and count them in both their BA undergraduate major and M.S. in Management program. These courses will appear at the 500 level on their undergraduate transcripts and will be transferred at the 900 level for the M.S. in Management program once they have completed their B.S. degrees. Students must have permission of the graduate instructor and the M.S. in Management graduate coordinator to take any graduate classes before they have finished their undergraduate degree program.

BA 960	Leadership (may count in the BA electives or in the management concentration.)
BA 962	Ethics and Social Responsibility of Leadership (may count in the BA electives or in the management concentration.)
BA 915	Corporate Finance (this may be counted as a substitute for BA 404 in the BA electives or within the finance concentration.)
BA 912	Marketing Management (this may count in the BA electives or within the marketing concentration.)

Sample Timeline for Completion of Degree: Business Administration (for All Students Entering in Fall 2012 or Later)

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
LASC	First-Year Seminar	3
EN 101	English Composition I (WR)	3
BA 200	Principles of Management and Organizational Behavior	3
EC/MA 150	Statistics (QR*)	3
EC	Either EC 120 or EC 110 (HBS)	3
	Semester Subtotal	**15**

Semester Two		
Course No.	**Course Name**	**Credits**
EN 102	English Composition II (WR)	3
EC	Either EC 120 or EC 110	3
CS 120	Microcomputer Applications in Business I (QR*)	3
LASC	Constitutions (CON)	3
LASC	DAC	3
	Semester Subtotal	**15**
Comments	*One QR must be a MA course	

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
EC/MA 202	Calculus	3-4
EN 253	Business Communications	3
BA 210	Financial Accounting I	3
LASC	The United States and Its Role in the World (USW)	3
LASC	Global Perspectives (GP)	3
	Semester Subtotal	**15-16**

YEAR THREE

Semester Six		
Course No.	**Course Name**	**Credits**
BA 312	Operations Management I	3
BA 350	Business Info Systems	3
BA	Either BA 320 or BA 480	3
BA	BA Concentration Elective	3
LASC	WAC	3
	Semester Subtotal	**15**

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
BA 490	Business Strategy and Policy	3
BA	BA Concentration Elective	3
LASC	Creative Arts (CA)	3
LASC	Individual and Community Well-Being (ICW)	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Semester Eight		
Course No.	**Course Name**	**Credits**
BA	BA Concentration Elective	3
BA	BA Concentration Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

Business Administration Courses (Undergraduate)

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

BA 100 Introduction to Business (only as a free elective)

Introduction to basic concepts related to business practices; includes examination of local, regional, and national organizations in the business world.
Offered every year. 3 credits.

BA 193 Special Topics in Business Administration for First-Year Students

All "193" courses are approved for LASC but may vary by section. See current course listing for specific LASC area approval.

Introductory level course covering topics of special interest to first-year students. Offered only as a First-Year Seminar.
Offered every year. 3 credits.

BA 200 Principles of Management and Organizational Behavior

Study of management practices and behavior in organizational settings. Emphasis on introduction to managerial principles, concepts and fundamentals.
Offered every year. 3 credits.

BA 210 Financial Accounting I

Principles, concepts, procedures, and techniques of financial accounting necessary to preparation, understanding, and interpretation of accounting information.
Offered every year. 3 credits.

BA 220 Financial Accounting II

Prerequisite: BA 210

Continuation of topics covered in BA 210.
Offered every year. 3 credits.

BA 230 Managerial Accounting

Prerequisite: BA 220

Analysis, interpretation and use of accounting data for effective managerial planning, control and decision-making.
Offered every year. 3 credits.

BA 250 Analytical Techniques in Business

Prerequisites: BA 200, BA 220, CS 120 or 121, MA 150 or EC 150

Identification and analysis of common business problems using proper quantitative techniques and standard business software.
Offered every year. 3 credits.

BA 300 Organization Theory

Prerequisite: BA 200

A macro examination of organizations utilizing current research findings based largely upon a systems/contingency framework, designed to improve organizational effectiveness.
Offered every 2 years. 3 credits.

BA 302 Introduction to Entrepreneurship

Prerequisite: Need to be min. of Junior level or by consent of Instructor/Chair

Students learn and explore the nature and challenges of entrepreneurship; venture the life cycle of opportunity-launch-growth-fruitage.
Offered every year. 3 credits.

BA 303 Small Business Management

Prerequisite: Need to be min. of Junior level or by consent of Instructor/Chair

This course focuses on essential management skills relating to starting and managing a small business where one or a few individuals provide initial financing.
Offered every year. 3 credits.

BA 304 Women Entrepreneurs and Leaders

Prerequisite: Need to be min. of Junior level or by consent of Instructor/Chair

Students will focus on the research of women business leaders and the roles they have played in the global economy.
Offered every year. 3 credits.

BA 305 Organizational Behavior

Prerequisite: BA 200

Study of organizational effectiveness and quality of working life, through individual, organizational, and contextual level theories and practices.
Offered every year. 3 credits.

BA 306 Human Resource Management

Prerequisite: BA 305

An examination of human resource management including employment laws, recruiting/selection, training/development, and benefits/compensation administration.
Offered every year. 3 credits.

BA 312 Operations Management I

Prerequisites: BA 200, CS 120, MA 150 or EC 150

Applied analysis of operations in service and production systems using quantitative models and calculus; inventory, work measurement, scheduling, quality control.
Offered every year. 3 credits.

BA 315 Quantitative Analysis and Information Systems

Prerequisite: CS 120

Introduction to basic quantitative analysis applied to management planning and operations systems. Includes business information systems and applications.
Offered every 3 years. 3 credits.

BA 316 Financial Management

LASC—Quantitative Literacy Across the Curriculum

Prerequisite: BA 220

Financial analysis, working capital management and basics of capital budgeting.
Offered every year. 3 credits.

BA 318 Principles of Marketing

Prerequisite: BA 200, EC110, and EC 120

Overview of the full range of activities involved in marketing, develops an understanding of marketing strategy and processes.
Offered every year. 3 credits.

BA 320 Business Law I

Prerequisite: BA 200

Introduction to legal concepts as applied to the study of contracts, personal property, sales, and the Uniform Commercial Code.
Offered every year. 3 credits.

BA 321 Business Law II

Prerequisite: BA 320

Continuation of topics covered in BA 320. Study of laws of partnerships and corporations.
Offered every 3 years. 3 credits.

BA 327 Ethical Decision Making in Business

Prerequisites: BA 200; BA 210, BA 318

This course will identify, discuss and analyze ethical issues faced by business professionals and discuss approaches for resolving ethical dilemmas.
Offered every year. 3 credits.

BA 350 Business Information Systems and Applications

Prerequisite: BA 230 or BA 374, CS 120

Survey of automated business information systems and microcomputer applications with emphasis on business oriented software.
Offered every year. 3 credits.

BA 351 Managing eBusiness

Prerequisites: IT Minor: Core IT Courses • BA Major: Core BA Courses

Digitizing new forms of business organizations to create business-to-business partnerships, business-to-consumer relationships, pathways-to-profitability; Legal, Ethical, Social, Political and Global Issues.
Offered every year. 3 credits.

BA 355 Insurance and Risk Management

Prerequisite: BA 200

This survey course covers the identification and evaluation of risk, and techniques for the management of risk. Commercial and personal risks are studied from the points of view of the corporation, the individual, and the insurer. Areas of emphasis include commercial property, business liability, worker's compensation, automobile, life, health, disability, and income insurance.
Offered every year. 3 credits.

BA 362 Accounting for Non-Profit Organizations

Prerequisite: None

Specialized area of accounting for unique requirements for non-profit organizations; includes analysis of budgeting, financial statements and other unique accounting requirements needed by management to assess the controls of a non-profit entity.
Offered every 2 years. 3 credits.

BA 370 Intermediate Accounting I

Prerequisites: BA 210, BA 220

Accounting theory, principles, concepts, and procedures applied to balance sheet and income statement accounts. Presentation and interpretation of financial reports.
Offered every year. 3 credits.

BA 371 Intermediate Accounting II

Prerequisite: BA 370

Continuation of BA 370.
Offered every year. 3 credits.

BA 372 Advanced Accounting I

Prerequisite: BA 370

Mergers and consolidations; parent and subsidiary relationships; pooling of interests and purchases; fund accounting; price-level accounting.
Offered every year. 3 credits.

BA 373 Advanced Accounting II

Prerequisite: BA 372

Special advanced topics including review of Accounting Research Bulletins of the AICPA.
Offered every 2 years. 3 credits.

BA 374 Cost Accounting

Prerequisites: BA 200, BA 210, BA 220

Accounting for costs in business enterprises. Emphasis placed on fundamental principles including job order, process, and standard costs.
Offered every year. 3 credits.

BA 375 Federal Income Taxes I

Prerequisite: BA 370

A study of federal income taxation as applied to individuals.
Offered every year. 3 credits.

BA 376 Auditing

Prerequisite: BA 370

Basic auditing concepts and developments and their application to the examination, evaluation and reporting of financial data.
Offered every year. 3 credits.

BA 377 Federal Income Taxes II

Prerequisite: BA 375

Federal income taxes for corporations and partnerships.
Offered every 2 years. 3 credits.

BA 380 Negotiations

Prerequisites: BA 200, BA 210, BA 220, BA 305, EC 110, EC 120

This course focuses on effective negotiations, conflict management, and power and influence in organizational and other settings.
Offered every year. 3 credits.

BA 385 Leadership

Prerequisites: BA 200, BA 305

This course focuses on leadership theories, skills and applications. Self-assessment and reflection are important learning components of the course.
Offered every year. 3 credits.

BA 400 Management and Organizational Behavior I

Prerequisite: BA 305

Study of concepts, theory, research, and operational problems of organizational behavior; work groups and intergroup behavior models.
Offered every 3 years. 3 credits.

BA 401 Management and Organizational Behavior II

Prerequisite: BA 400

Continuation of topics covered in BA 400 with additional theory and case studies; behavioral science/systems approach is taken
Offered every 3 years. 3 credits.

BA 402 Launching the Venture - The Business Plan

Prerequisite: BA 302 or the consent of instructor/chair

Learn and practice the analytics of building a business model, plan for a venture, explore the strategies, and launch the venture.
Offered every year. 3 credits.

BA 404 Corporate Finance

Prerequisite: BA 316

Advanced capital budgeting, capital structure, long-term financing decisions, dividend policy, computer modeling, comprehensive financial strategy cases.
Offered every 2 years. 3 credits.

BA 406 Trends in Marketing

Prerequisite: BA 318

Integrates all aspects of marketing theory through readings, case studies, class projects, individual projects, and computer simulation of marketing decisions.
Offered every 2 years. 3 credits.

BA 408 Operations Management II

Prerequisite: BA 312

Continuation of topics of BA 312 with focus on production planning and flow.
Offered every 3 years. 3 credits.

BA 409 Quantitative Analysis and Techniques I: Linear Models for Administration

Prerequisite: BA 315

Application of QA techniques to problems of linear programming, inventory models, and PERT-CPM networks.
Offered every 3 years. 3 credits.

BA 411 Supply and Value Chain Management

Prerequisite: BA 312

This course links all of the supply interacting organizations in an integrated two-way communications system to manage high quality inventory.
Offered every year. 3 credits.

BA 414 Real Estate Investment

Prerequisite: BA 316

This course covers the fundamental concepts, principles, analytical methods, and tools used in making residential and commercial Real Estates investment decisions.
Offered every year. 3 credits.

BA 415 Investment Analysis

Prerequisite: BA 316

Survey of investment vehicles, including stocks, bonds, real estate, commodities, mutual funds, and collectibles. Modern portfolio and valuation theories.
Offered every year. 3 credits.

BA 416 Financial Markets and Institutions

Prerequisite: BA 316

Study of banks, investment banking, money markets, and the financial service industry as they affect long and short-term financing decisions.
Offered every 3 years. 3 credits.

BA 420 Marketing Research

Prerequisite: BA 318

Nature and scope of marketing research. Application of scientific methods, sources, problem definition, and collection of data, reporting and evaluation.
Offered every year. 3 credits.

BA 422 Retailing

Prerequisite: BA 318

Demand analysis, consumer behavior, and planning and control of the merchandising functions; retailing as a career.
Offered every 3 years. 3 credits.

BA 424 Advertising Management

Prerequisite: BA 318

Advertising from a planning perspective. Advertising and professional promotion strategies with execution and control activities.
Offered every 3 years. 3 credits.

BA 426 Consumer Behavior

Prerequisite: BA 318

The analysis of the consumer decision process as it affects marketing management decisions. Major factors of influence in this process will be studied including culture, social class, family, and reference groups.
Offered every 3 years. 3 credits.

BA 428 Business to Business Marketing

Prerequisite: BA 318

Explores business markets which account for more than half the economic activity globally.
Offered every 3 years. 3 credits.

BA 429 Integrated Marketing Communications

Prerequisite: BA 318

This course is designed for students who have an interest in increasing their knowledge of the marketing promotional process.
Offered every 3 years. 3 credits.

BA 430 Administrative Practices and Management

Prerequisite: BA 305

Overview and analysis of human conduct in work-organization settings.
Offered every 3 years. 3 credits.

BA 434 Management and Corporate Responsibility

Prerequisite: BA 200

The theoretical and practical relationships of corporate conflicts of interests, self-regulation, product liability, employee rights, etc. to management decisions.
Offered every year. 3 credits.

BA 440 International Business and Management

Prerequisites: BA 316, BA 318

Study and analyze the nature, structures and strategies of international/global businesses. Examine international markets, economic systems, value-chains and core competencies of a firm.
Offered every 2 years. 3 credits.

BA 445 Advanced Applications in Computerized Financial Reporting

Prerequisites: BA 370, BA 374, or BA 230

Hands-on experience with general ledger accounting software emphasizing advanced level accounting concepts and information reporting systems.
Offered every 2 years. 3 credits.

BA 446 Total Quality Management Systems

Prerequisite: BA 200

Examines the "quality" revolution sweeping American business in manufacturing, health care and other service industries both profit and non-profit.
Offered every year. 3 credits.

BA 474 Corporate Law

Prerequisite: BA 320

Corporate powers and corporate management. Designed for future corporate executives and accountants.
Offered every 3 years. 3 credits.

BA 480 The Legal Environment of Business

Prerequisite: BA 200

The impact of governmental regulation on business and its response will be evaluated by unique debate-type format.
Offered every year. 3 credits.

BA 481 Independent Study in Business Administration

Prerequisite: BA 200

Independent study in business administration, usually involving field work which is not an internship.
Offered every year. 1-6 credits.

BA 482 Selected Topics in Business Administration

Prerequisites: BA 305, BA 316, BA 318

Selection of topics of mutual interest to the student and faculty.
Offered every year. 1-6 credits.

BA 486 Internship in Business Administration

Prerequisites: BA 305, BA 316, BA 318

Practical experience in operations of business. Internships within co-operative firms with on-site supervision and evaluation.
Offered every year. 1-12 credits.

BA 490 Business Strategy and Policy

LASC - Major Capstone

Prerequisites: BA 316, BA 318

Capstone course integrating information provided in the functional areas such as finance, marketing, general management, business legal environment.
Offered every year. 3 credits.

BA 492 Selected Topics in Health Administration Prerequisite: BA 361

Selected topics in health administration of mutual interest to the student and faculty.
Offered every 3 years. 1-6 credits.

BA 493 Selected Topics in Government Administration

Prerequisite: BA 361

Recent developments in public administration of mutual interest to students and faculty.
Offered every 3 years. 1-6 credits.

BA 494 International Marketing

Prerequisites: EC 120, BA 318

With the rapid and continuous changes in a global environment we will examine the complex issues in international marketing faced by today's manager.
Offered every year. 3 credits.

Communication
Department of Communication

Faculty

Julian Berrian, Assistant Professor (2006)
B.A., University of Maryland; M.F.A., Temple University

Donald F. Bullens, Associate Professor (1986), Department Chair
B.S. Ed., M.Ed., Worcester State College

Alta Carroll, Professor (1998)
B.A., Texas A & M University; M.S., Columbia University; Ph.D., Purdue University

Carlos Fontes, Professor (1996)
B.A., Escola Superior de Meios de Communicacao Social, Lisbon;
M.A., Ph.D., University of Massachusetts

Julie D. Frechette, Professor (1999)
B.A., University of New Hampshire; M.A., Ph.D., University of Massachusetts

Suzanne Gainer, Professor (2001)
B.A., St. Vincent College; M.F.A., Rhode Island School of Design

Daniel S. Hunt, Assistant Professor (2013)
B.A., University of Rhode Island; M.S., Boston University College of Communication;
Ph.D., University of Connecticut

Emanuel E. Nneji, Associate Professor (2005)
B.A., University of Nigeria; M.S., University of Lagos; Ph.D., University of South Carolina

Barbara Zang, Professor (2002)
B.S., University of Missouri; M.A., University of Toledo; M.A., University of Missouri;
Ph.D., Indiana University

The Department of Communication at Worcester State University promotes the critical understanding of communication in a culturally diverse and technological world. Grounded on methods of inquiry, the program engages students in the theory and practice of mass communications and intercultural communication. The department's goal is to educate students to assess the role of communication in society, and to be proficient communicators and competent users of current technologies. Representing diverse areas of expertise, the faculty emphasizes contemporary issues and media ethics from a global perspective.

Courses focused on media literacy, criticism, production and special topics, prepare students for careers in the field and for further study at the graduate level. Facilities include computer labs, a state-of-the-art television studio, editing suites, electronic field production video equipment and photographic dark rooms.

In addition to course work, students in their junior and senior year who have a GPA of 2.7 or higher are encouraged to apply for media internships with companies and nonprofit

organizations that have a long-standing relationship with the Department. Majors have the opportunity to become members of WSTS-TV 11 and WSCW radio station. The Department sponsors internships and photographic exhibits; in addition, many WSU students participate in off-campus communication-related competitions and activities.

Requirements for a Major in Communication 36 credits for the Media Theory and Public Communication concentrations and 39 credits for the concentration in Media Production.

Core Courses

CM 100	Introduction to Mass Communication
CM 105	Media Writing ***or***
CM 200	Writing for Communication
CM 110	Public Speaking
CM 363	Visual Media Literacy
CM 384	Media Criticism

One of the Following Courses

CM/WO 213	Gender and Media
CM/WO 350	Intercultural Communication
CM/WO 390	Alternative Communication

Elective Courses: 18 credits in Communication

Sample Timetable for Completion of Degree Communication, Generalist

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
LASC	First-Year Seminar	3
EN 101	English Composition I	3
CM 100	Introduction to Mass Communications	3
LASC	Quantitative Reasoning (QR)	3
LASC	Global Perspectives (GP)	3
	Semester Subtotal	**15**

Semester Two		
Course No.	**Course Name**	**Credits**
EN 102	English Composition II	3
LASC	Constitutions	3
CM 110	Public Speaking	3
LASC	The United States and Its Role in the World (USW)	3
LASC	Thought, Language and Culture (TLC)	3
	Semester Subtotal	**15**
Comments		

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
CM 105	Media Writing	3
CM	Major Elective	3
LASC	Natural Systems and Processes (NSP)	4
LASC	Thought, Language and Culture (TLC)	3
LASC	Global Perspectives (GP)	3
	Semester Subtotal	**16**

Semester Four		
Course No.	**Course Name**	**Credits**
CM 213	Gender and Media	3
CM	Major Elective	3
LASC	Natural Systems and Processes (NSP)	3
LASC	Human Behavior and Social Processes (HBS)	3
LASC	Creative Arts (CA)	3
	Semester Subtotal	**15**
Comments		

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
CM 363	Visual Media Literacy	3
CM	Major Elective	3
LASC	Human Behavior and Social Processes (HBS)	3
LASC	Creative Arts (CA)	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Semester Six		
Course No.	**Course Name**	**Credits**
CM 384	Media Criticism	3
CM	Major Elective	3
LASC	Individual and Community Well-Being (ICW)	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments		

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
CM 435	Media Internship	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Semester Eight		
Course No.	**Course Name**	**Credits**
LASC/CM	Capstone	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments		

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

Requirements for a Concentration in Journalism. In addition to the six core courses, students will have to complete the following:

Required Courses for Concentration

CM/EN 107	Journalism and Democracy
CM/EN 272	News Reporting and Writing I
CM/EN 416	Media Law and Ethics

Four of the following
Elective courses:

CM/EN 268	Journalism: Feature Writing
CM/EN 270	Journalism: Editing
CM/EN 351	News Reporting and Writing II
CM/EN 352	Practicum in Journalism
CM/EN 353	Narrative Journalism
CM/EN 354	Opinion Writing
CM 390	Alternative Communication
CM 359	Documentary Production
CM 435	Internship
EN 475	Internship in English

Pre-requisites: EN 102 Composition II, CM/EN 107 Journalism and Democracy, and CM/EN 272 News Reporting and Writing I for every journalism course except for CM/EN 270 Journalism: Editing, which has only EN 102 Composition II as a prerequisite.

Sample Timetable for Completion of Degree
Communication/Concentration Journalism

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
LASC	First-Year Seminar	3
EN 101	English Composition I	3
CM 100	Introduction to Mass Communications	3
CM/EN 272	News Reporting and Writing I	3
LASC	The United States and Its Role in the World (USW)	3
	Semester Subtotal	**15**

Semester Two		
Course No.	**Course Name**	**Credits**
EN 102	English Composition II	3
LASC	Constitutions	3
CM 110	Public Speaking	3
CM/EN 107	Journalism and Democracy	3
LASC	Quantitative Reasoning (QR)	3
	Semester Subtotal	**15**
Comments		

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
CM 105	Media Writing	3
LASC	Global Perspectives (GP)	3
LASC	Natural Systems and Processes (NSP)	4
LASC	Thought, Language and Culture (TLC)	3
LASC	Human Behavior and Social Processes (HBS)	3
	Semester Subtotal	**16**

Semester Four		
Course No.	**Course Name**	**Credits**
CM 213	Gender and Media	3
CM	Journalism Elective	3
LASC	Natural Systems and Processes (NSP)	3
LASC	Thought, Language and Culture (TLC)	3
LASC	Individual and Community Well-Being (ICW)	3
	Semester Subtotal	**15**
Comments		

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
CM 363	Visual Media Literacy	3
CM	Journalism Elective	3
LASC	Global Perspectives (GP)	3
LASC	Creative Arts (CA)	3
LASC	Human Behavior and Social Processes (HBS)	3
	Semester Subtotal	**15**

Semester Six		
Course No.	**Course Name**	**Credits**
CM 384	Media Criticism	3
CM	Journalism Elective	3
LASC	Creative Arts (CA)	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments		

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
CM 435	Media Internship	3
LASC/CM	Capstone	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Semester Eight		
Course No.	**Course Name**	**Credits**
CM/EN 416	Media Law and Ethics	3
CM	Journalism Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments		

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

Requirements for the Concentration in Media Production. In addition to the six core courses, students will have to complete the following:

TRACK A: Print Media

Required Courses for this Track

CM 150	Photography I ***or***
CM 151	Introduction to Digital Photography
CM 160	Digital Imaging
CM 231	Photography II
CM 244	Graphic Design

Elective Courses: 9 credits in Communication

Sample Timetable for Completion of Degree Communication/ Concentration Media Production A: Print Media

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
LASC	First-Year Seminar	3
EN 101	English Composition I	3
CM 100	Introduction to Mass Communications	3
LASC	Thought, Language and Culture (TLC)	3
LASC	The United States and Its Role in the World (USW)	3
	Semester Subtotal	**15**

Semester Two		
Course No.	**Course Name**	**Credits**
EN 102	English Composition II	3
LASC	Constitutions	3
CM 150 OR CM 200	Photography I Writing for CM	3
LASC	Quantitative Reasoning (QR)	3
LASC	Individual and Community Well-Being (ICW)	3
	Semester Subtotal	**15**
Comments		

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
CM 110	Public Speaking	3
CM 150 or CM 151	Photography I Introduction to Digital Photography	3
LASC	Natural Systems and Processes (NSP)	4
LASC	Creative Arts (CA)	3
LASC	Human Behavior and Social Processes (HBS)	3
	Semester Subtotal	**16**

Semester Four		
Course No.	**Course Name**	**Credits**
CM 231	Photography II	3
CM 363	Visual Media Literacy	3
LASC	Thought, Language and Culture(TLC)	3
LASC	Human Behavior and Social Processes (HBS)	3
LASC	Global Perspectives (GP)	3
	Semester Subtotal	**15**
Comments		

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
CM 160	Introduction to Digital Imaging	3
CM 213 or CM 350 or CM 390	Gender and Media Intercultural Communication Alternative Communication	3
LASC	Natural Systems and Processes (NSP)	3
LASC	Creative Arts (CA)	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Semester Six		
Course No.	**Course Name**	**Credits**
CM 244	Graphic Design	3
CM 384	Media Criticism	3
LASC	Global Perspectives (GP)	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments		

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
LASC/CM	Capstone	3
CM	Elective or Internship	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Semester Eight		
Course No.	**Course Name**	**Credits**
CM	Elective or Internship	3
CM	Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments		

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

TRACK B: Broadcast Media

Required Courses for this Track

CM 259	Television Production I
CM 260	Introduction to Video
CM 366	Scriptwriting
CM 396	Video Editing

Elective Courses: 9 credits in Communication

Suggested Timetable for Completion of Degree Communication/ Concentration In Broadcast Media

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
LASC	First-Year Seminar	3
EN 101	English Composition I	3
CM 100	Introduction to Mass Communication	3
CM 110	Public Speaking	3
LASC	The United States and Its Role in the World (USW)	3
	Semester Subtotal	**15**

Semester Two		
Course No.	**Course Name**	**Credits**
EN 102	English Composition II	3
LASC	Constitutions	3
CM 105	Media Writing	3
CM 241*	Understanding Movies*	3
LASC	Quantitative Reasoning (QR)	3
	Semester Subtotal	**15**
Comments	* Recommended Electives	

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
CM 259 or CM 260	TV Production I Introduction to Video	3
CM 363	Visual Media Literacy	3
LASC	Natural Systems and Processes (NSP)	4
LASC	Global Perspective (GP)	3
LASC	Human Behavior and Social Processes (HBS)	3
	Semester Subtotal	**16**

Semester Four		
Course No.	**Course Name**	**Credits**
CM 259 or CM 260	TV Production I Introduction to Video	3
CM 366	Scriptwriting	3
LASC	Thought, Language and Culture (TLC)	3
LASC	Human Behavior and Social Processes (HBS)	3
LASC	Creative Arts (CA)	3
	Semester Subtotal	**15**
Comments		

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
CM 384	Media Criticism	3
CM 396	Video Editing	3
LASC	Natural Systems and Processes (NSP)	3
LASC	Thought, Language and Culture (TLC)	3
LASC	Global Perspective (GP)	3
	Semester Subtotal	**15**

Semester Six		
Course No.	**Course Name**	**Credits**
CM 359*	Documentary Production*	3
CM 435*	Media Internship*	3
LASC	Creative Arts (CA)	3
LASC	Individual and Community Well-Being (ICW)	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments	* Recommended Electives	

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
CM 360	TV Production II	3
CM 213 or CM 350 or CM 390	Gender and Media Intercultural Communication Alternative Communication	3
LASC/CM	Capstone	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Semester Eight		
Course No.	**Course Name**	**Credits**
CM 404*	Independent Study in Media*	3
CM	Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments	* Recommended Electives	

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

Requirements for the Concentration in Advertising and Public Relations. In addition to the six core courses, students will have to complete the following:

Required Courses for Concentration (4 courses)

CM 180	Introduction to Advertising
CM 240	Public Relations Principles and Practices
CM 340	Public Relations Strategy ***or***
CM 370	Advertising Production
CM 400	Public Relations Research ***or***
CM 405	Mass Communication Research

Elective Courses: 6 credits in Communication

Sample Timetable for Completion of Degree Communication/ Concentration in Advertising and Public Relations

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
LASC	First-Year Seminar	3
EN 101	English Composition I	3
CM 100	Introduction to Mass Communications	3
CM 110	Public Speaking	3
LASC	Quantitative Reasoning (QR)	3
	Semester Subtotal	**15**

Semester Two		
Course No.	**Course Name**	**Credits**
EN 102	English Composition II	3
LASC	Constitutions	3
CM 105 or CM 200	Media Writing Writing for Communication	3
LASC	Thought, Language and Culture (TLC)	3
LASC	The United States and Its Role in the World (USW)	3
	Semester Subtotal	**15**
Comments		

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
CM 180*	Introduction to Advertising*	3
CM 240*	Principles of Public Relations*	3
LASC	Natural Systems and Processes (NSP)	4
LASC	Thought, Language and Culture (TLC)	3
LASC	Global Perspectives (GP)	3
	Semester Subtotal	**16**

Semester Four		
Course No.	**Course Name**	**Credits**
CM 213 or CM 350 or CM 390	Gender and Media Intercultural Communication Alternative Communication	3
CM	Major Elective	3
LASC	Natural Systems and Processes (NSP)	3
LASC	Creative Arts (CA)	3
LASC	Human Behavior and Social Processes (HBS)	3
	Semester Subtotal	**15**
Comments	* Taught each Fall semester	

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
CM 363	Visual Media Literacy	3
CM 384	Media Criticism	3
LASC	Global Perspectives (GP)	3
LASC	Human Behavior and Social Processes (HBS)	3
LASC	Creative Arts (CA)	3
	Semester Subtotal	**15**

Semester Six		
Course No.	**Course Name**	**Credits**
CM 340**	Public Relations Strategy**	3
CM 370**	Advertising Production**	3
LASC	Individual and Community Well-Being (ICW)	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments	** Taught each Spring semester	

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
CM 363	Visual Literacy	3
CM 384	Media Criticism	3
CM 400***	Public Relations Research***	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Semester Eight		
Course No.	**Course Name**	**Credits**
CM 400*** or CM 405	Public Relations Research*** Mass Communication Research/Capstone	3
CM	Journalism Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments	*** Taught every third semester	

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

Requirements for the Concentration in Media Theory. In addition to the six core courses, students will have to complete the following:

Required Courses for Concentration

CM 301	Communication Theory
CM 404	Independent Study in Media*
CM 405	Mass Communication Research

Elective Courses: 9 credits in Communication

Sample Timetable for Completion of Degree Communication/ Concentration in Media Theory

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
LASC	First-Year Seminar	3
EN 101	English Composition I	3
CM 100	Introduction to Mass Communications	3
CM	Major Elective	3
LASC	Thought, Language and Culture (TLC)	3
	Semester Subtotal	**15**

Semester Two		
Course No.	**Course Name**	**Credits**
EN 102	English Composition II	3
LASC	Constitutions	3
CM	Major Elective	3
LASC	The United States and Its Role in the World (USW)	3
LASC	Quantitative Reasoning (QR)	3
	Semester Subtotal	**15**
Comments		

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
CM 200	Writing for Communication	3
CM	Major Elective	3
LASC	Natural Systems and Processes (NSP)	4
LASC	Human Behavior and Social Processes (HBS)	3
LASC	Creative Arts (CA)	3
	Semester Subtotal	**16**

Semester Four		
Course No.	**Course Name**	**Credits**
CM 110*	Public Speaking*	3
CM 213	Gender and Media	3
LASC	Human Behavior and Social Processes (HBS)	3
LASC	Thought, Language and Culture (TLC)	3
LASC	Global Perspectives (GP)	3
	Semester Subtotal	**15**
Comments	* Required course for the Major.	

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
CM 363*	Visual Media Literacy*	3
CM 384*	Media Criticism*	3
CM	Major Elective	3
LASC	Natural Systems and Processes (NSP)	3
LASC	Global Perspectives (GP)	3
	Semester Subtotal	**15**

Semester Six		
Course No.	**Course Name**	**Credits**
CM 301**	Communication Theory**	3
CM	Major Elective	3
LASC	Individual and Community Well-Being (ICW)	3
LASC	Creative Arts (CA)	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments	* Required course for the Major. **Required course for Media Theory Concentration.	

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
CM 405**	Mass Communication Research**/Capstone	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Semester Eight		
Course No.	**Course Name**	**Credits**
CM 404**	Independent Study in Media**	3
CM	Major Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments	** Required course for the Media Theory Concentration 9 elective credits in Major are part of the concentration	

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

Requirements for a Minor in Communication 18 credits including

CM 100 Introduction to Mass Communication
CM 110 Public Speaking
Plus any 4 electives in Communication

Requirements for a Minor in Communication Education 18 credits including

CM 100 Introduction to Mass Communication
CM 110 Public Speaking
CM/WO 350 Intercultural Communication
CM 384 Media Criticism ***or***
CM 363 Visual Media Literacy
Plus any 2 electives in Communication

Worcester State University/Clark University COPACE BS/MSPC Degree Program

Through a COPACE cooperative program between Worcester State University and Clark University, qualified Communication Majors and Minors during their senior year can work towards a Master of Science in Professional Communication, while concurrently completing their Baccalaureate degree.

Communication Courses

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

CM 100 Introduction to Mass Communication

LASC—Human Behavior and Social Processes; Thought, Language and Culture

An integrated examination of the history, theory, structure, process, and effects of each of the mass media.
Offered every year. 3 credits.

CM 101 Library Skills for Research

The course covers the basics of library research: search strategies and how to use both print and automated research tools.
Offered every 3 years. 1 credit.

CM 103 Survey of Radio and Television

LASC—Human Behavior and Social Processes; Thought, Language and Culture

Perspectives on the development of radio and television technologies, programming, regulation, and economic support, and their impact.
Offered every 2 years. 3 credits.

CM 105 Media Writing

Prerequisite: CM 100

An introduction to various types of mass media writing, from print and broadcast to public relations, advertising and online media.
Offered every year. 3 credits.

CM 106 Communication and the Internet

LASC—Thought, Language and Culture

Focuses on the social and educational implications of the Internet and the application of its various search tools as a means to communication.
Offered every 2 years. 3 credits.

CM/EN 107 Journalism and Democracy

This course introduces students to the history of American journalism and the role of journalism in democratic and non-democratic societies.
Offered every year. 3 credits.

CM 108/AR 105 Introduction to Animation

This hands-on introductory-level course covers the fundamentals of aesthetics of computer animation.
Offered every semester. 3 credits.

CM 110 Public Speaking

LASC—Thought, Language and Culture

Essentials of speech production and speech writing for large and small groups. Classroom practice in delivering various types of speeches.
Offered every year. 3 credits.

CM 150 Photography I

LASC—Creative Arts

Covers the basic theory and practice of 35mm B/W photography, including camera handling, film processing, light meters, printing and picture content.
Offered every year. 3 credits.

CM 151 Introduction to Digital Photography

LASC—Creative Arts

Techniques and aesthetics of digital photography. Introduction to the operation of SLR digital cameras and the computer as digital darkroom.
Offered every year. 3 credits.

CM 152 Ecotoursim & Photography in Costa Rica

LASC—Global Perspectives; Creative Arts

A multi-level, interdisciplinary photography course with travel to Costa Rica. This course covers basic digital photo techniques and the practices of sustainable eco-tourism. Additional fees apply.
Offered every year. 3 credits.

CM 160 Digital Imaging I

This course introduces students to the procedures, techniques and concepts of basic digital imaging. In the course students learn to use the computer as a tool for visual image making.
Offered every year. 3 credits.

CM 180 Introduction to Advertising

LASC—Human Behavior and Social Processes

An overview of the advertising including the historical and current roles of advertising in our economy, basic advertising concepts and methods, and social and cultural effects.
Offered every 2 years. 3 credits.

CM 191 Special Topics in Communication

An introductory level course in communications on current or specialized topics.
Offered every year. 3 credits.

CM 193 Special Topics in Communication for First-Year Students

All "193" courses are approved for LASC but may vary by section. See current course listing for specific LASC area approval.

Introductory level course covering topics of special interest to first-year students. Offered only as a First-Year Seminar.
Offered every year. 3 credits.

CM 199 Interpersonal Communication in Media

Study of the communications process as it relates to the production of material in various media, including video, audio, film.
Offered every 2 years. 3 credits.

CM 200 Writing for Communication

LASC—Writing Across the Curriculum

Prerequisite: EN 102

Development of writing, research, and critical thinking skills associated with the discipline of communication. Assignments focus on contemporary communication issues.

Offered every year. 3 credits.

CM 204 Analysis of News

This course introduces students to the conventions, ethical issues and the economic, political and socio-cultural forces that affect mainstream and alternative journalism today

Offered every 2 years. 3 credits.

CM 205 Reporting for Media

This course refines interviewing skills and enables students to develop evidence from documentary sources to create stories for converging media.
Offered every year. 3 credits.

CM 206 Digital Storytelling

Prerequisite: CM 100

Use of personal narrative to construct stories using audio, still and video images, and music tracks in digital format.
Offered every year. 3 credits.

CM 210 Special Topics in Communication

This is a mid-level communication course focused on current specialized topics not covered by the department's curriculum
Offered every 2 years. 3 credits.

CM/WO 213 Gender and Media

LASC—Human Behavior and Social Processes; Thought, Language and Culture; Diversity Across the Curriculum; Writing Across the Curriculum

Prerequisite: CM 100, EN 102

This course will explore how difference is socially constructed along gender lines and will explore the intersections of gender, identity, power and media representation.
Offered every 2 years. 3 credits

CM 231 Photography II

Prerequisite: CM 150 or CM 151

Expands basic skills in camera craft, film and print processing and presentation. Instruction and practice in the Zone System, theory and practice of advanced exposure and film development control. Emphasis on photographic composition and efficiency in designing purposeful photographic statements.
Offered every year. 3 credits.

CM 240 Principles of Public Relations

LASC—Human Behavior and Social Processes

Prerequisite: CM 100

An overview of public relations principles in business, politics and society.
Offered every 2 years. 3 credits.

CM 241 Understanding Movies

LASC—Creative Arts; Thought, Language and Culture

An introduction to the aesthetics and critical theories of film as an artistic medium of communication through critical observation of classic and contemporary movies.
Offered every year. 3 credits.

CM 244 Graphic Design

Through hands-on projects, students will learn formal elements of design, principles of typography, idea generation, and issues of responsible design as applied to print media.
Offered every year. 3 credits.

CM/CS 247 Introduction to Multimedia

Prerequisite: Introduction to computers or experience

Use of computers to create digitized video, images, sound, animation, and text for CD-ROM, the internet, television and other productions.
Offered every 2 years. 3 credits.

CM/MU 250 Music of the Cinema: Spectacle, Splendor, and Spielberg

An introduction to the role, impact, and importance of music in motion pictures from silent movies through contemporary film.
Offered every 2 years. 3 credits.

CM 259 Television Production I

LASC—Creative Arts

Basics of studio production including visualization and sequencing of short scripts, sound, graphics, lighting, and technical direction.
Offered every year. 3 credits.

CM 260 Introduction to Video

LASC—Creative Arts

A beginning course in video program production, using lightweight and portable equipment.
Offered every year. 3 credits.

CM/EN 268 Journalism: Feature Writing

Prerequisite: EN 102

Provides advanced training in finding, researching, developing, and writing feature stories for newspapers and magazines.
Offered every 3 years. 3 credits.

CM 271 Media and Globalization

This course examines the emergence of global media and its impact on the development of a global world.
Offered every 2 years. 3 credits.

CM/EN 270 Journalism: Editing

Prerequisite: EN 102

Training in copy selection, copy editing, story placement, headline writing, layout, and use of style books.
Offered every 3 years. 3 credits.

CM/EN 272 News Reporting and Writing I

Prerequisites: EN 102 & EN 107

Includes fundamentals of news judgment, events coverage, sourcing, interviewing, writing on deadline, fact checking and basic editing.
Offered every year. 3 credits.

CM/AR 285 History of Photography

LASC—Creative Arts; Thoughts, Language and Culture

The history of photography from 1839 to present, with attention to styles, aesthetics, technical processes, and leading practitioners.
Offered every 2 year. 3 credits.

CM 301 Communication Theory

Prerequisite: CM 100

Examines the nature and origins of symbol systems, the make up of audiences, the effects of mass media, and concomitant research.
Offered every 3 years. 3 credits.

CM 305 Media for Non-profits

Prerequisites: CM 100, CM 105

This course covers the writing, research, planning and problem solving necessary to provide media service for a non-profit client.
Offered every 2 years. 3 credits.

CM 340 Public Relations Strategy

Prerequisite: CM 240

Case study approach to public relations practices, problems, opportunities, and application to practical situations
Offered every 2 years. 3 credits.

CM 344 Graphic Design II

Prerequisite: CM 244 Graphic Design I

The course builds upon the foundations of design covered in Graphic Design I, with emphasis on critical thinking, visual problem solving and the use of text and image.
Offered every year. 3 credits.

CM 345 Media and Democracy

Prerequisite: CM 100

This course aims to develop an understanding of democracy's requirements and the role of the media in relation to democracy.
Offered every 2 years. 3 credits.

CM/WO 350 Intercultural Communication

Prerequisite: CM 100

Introductory communication theory and practice across cultural groups defined by race, ethnicity, gender, religion, age, nationality, politics and economics.
Offered every 2 years. 3 credits.

CM/EN 351 News Reporting and Writing II

Prerequisite: EN 272

Focuses on using documentary evidence in reporting. Students select a reporting specialty area such as sports, business or higher education.
Offered every 2 years. 3 credits.

CM/EN 352 Practicum in Journalism

Prerequisite: EN 270 & EN 272

Workshop in which students report, write, and edit the online college news magazine. Participate in all aspects of publication.
Offered every semester. 3 credits.

CM/EN 353 Narrative Journalism

Prerequisite: EN 272

Students analyze and create in-depth journalistic features and nonfiction stories that blend reporting with techniques of fictional storytelling.
Offered every 2 years. 3 credits.

CM/EN 354 Opinion Writing

Prerequisite: EN 272

Students analyze and practice writing op-eds and other opinion pieces. Learn to write commentary that is publication ready.
Offered every 2 years. 3 credits.

CM 359 Documentary Production

Prerequisite: CM 260

This course engages students in a semester-long production of documentary and introduces key concepts of documentary theory.
Offered every 2 years. 3 credits.

CM 360 Television Production II

LASC—Creative Arts

Prerequisites: CM 259 or CM 260

The student will gain experience in the areas of electronic videotape editing, technology of television engineering, creative video, remote production and other advanced techniques. Primary emphasis is on the production of programs utilizing advanced techniques.
Offered every year. 3 credits.

CM 363 Visual Media Literacy

Prerequisite: CM 100

An introduction to principles of visual media literacy and their application in media production and perception.
Offered every year. 3 credits.

CM 366 Scriptwriting

Prerequisite: CM 100

Creating scripted material for the electronic media. All types, styles, and formats will be covered.
Offered every 2 years. 3 credits.

CM 370 Advertising Production

Prerequisite: CM 100, CM 180

Applied skills in advertising including the creation of advertisements in different media, advertising strategies, media schedules and campaign plans.
Offered every 2 years. 3 credits.

CM/CS 374 Advanced Multimedia

Prerequisite: CM/CS 247 or equivalent

Project-based approach using computers to design multimedia productions to integrate image, sound, and text. Emphasis on creative conceptualization, interface design, and project management.
Offered every 2 years. 3 credits.

CM 384 Media Criticism

LASC—Human Behavior and Social Processes; Thought, Language and Culture; Diversity Across the Curriculum; Writing Across the Curriculum

Prerequisite: CM 100, EN 102

Evaluation and analysis of film, television, theatre, and radio performances, development of intelligent, ethical standards of judgment.
Offered every year. 3 credits.

CM/WO 390 Alternative Communication

Prerequisite: CM103

This course introduces students to the theory and practice of alternative communication and its relationship with culture and politics.
Offered every 3 years. 3 credits.

CM 396 Video Editing

LASC—Creative Arts

Prerequisite: CM 259 or CM 260

The principles and procedures of editing one-half-inch and three-quarter-inch videotape using manual and electronic techniques and equipment. Students will produce short, edited programs.
Offered every 2 years. 3 credits.

CM 400 Public Relations Research

LASC—Human Behavior and Social Processes

Prerequisite: CM 240

Study of public relations research concepts, and application for planning, communication and evaluation.
Offered every 2 years. 3 credits.

CM 404 Independent Study in Media

Prerequisite: CM 100

Permits advanced students to investigate topic of special interest through research or production of a project. Periodic consultations with advisor.
Offered every 2 years. 1-6 credits.

CM 405 Mass Communication Research

LASC—Human Behavior and Social Processes; Writing Across the Curriculum

Prerequisite: EN 102

Survey of methods and applications of research in media fields, including advertising, public relations, journalism, new media and political communication.
Offered every year. 3 credits.

CM 410 Seminar: Topics in Communication

This course engages students in advanced examination of emerging communication topics and of topics in a faculty's area of expertise.
Offered every 2 years. 3 credits.

CM/EN 416 Media Law and Ethics

Prerequisite: EN 272

An overview of the U. S. legal and justice systems and an examination of ethical issues in mass media.
Offered every 2 years. 3 credits.

CM 435 Media Internship

Prerequisite: Two relevant communications courses and consent of department provides opportunity to advanced students to increase experience through internship with sponsoring community organization, institution, or business under appropriate supervision.
Offered every year. 3-12 credits.

CM 450 Senior Communication Capstone

Prerequisite: CM 100, CM 110, CM 105 or CM 200, CM 363 or CM 384

Course allows students to reflect upon and document culminating experiences while nearing the end of their major coursework.
Offered every year. 3 credits.

Criminal Justice
Department of Criminal Justice

Faculty

Tina R. Adams, Assistant Professor (2013)
B.A., College of the Holy Cross; M.A., Ph.D., California School of Professional Psychology

Robert A. Brooks, Associate Professor (2004),
B.M., Wayne State University; M.A., Antioch University, Los Angeles; J.D., University of Detroit Law School; Ph.D., American University

Aimée Delaney Lutz, Assistant Professor (2013)
B.A., M.A., C.A.G.S. (Domestic Violence), University of Massachusetts Lowell; Ph.D., University of New Hampshire, Durham

Hye-Sun Kim, Assistant Professor (2010)
B.A., Dongguk University, South Korea; M.A., Ewha Women's University, South Korea; M.A., John Jay College of Criminal Justice; Ph.D., Indiana University of Pennsylvania

Penny Martin, Associate Professor (2003)
B.S., Weber State College, Utah; M.A., Humboldt State University;
Ph.D., University of Miami

Stephen A. Morreale, Associate Professor (2007), Department Chair
B.S., University of Massachusetts Boston; M.P.A., Golden Gate University;
D.P.A., Nova Southeastern University

John R. Tahiliani, Associate Professor (2008)
B.A., King's College; M.A., Ph.D., Washington State University

The Bachelor of Science degree in Criminal Justice is a 120 credit-hour program. It is an interdisciplinary major, predicated on a common core of the humanities, social sciences, mathematics, and physical sciences. The goal of the program is to develop in students an increased analytical awareness of the role of law enforcement agencies, courts, and correctional institutions in the criminal justice system. The curriculum includes course work to provide students with awareness of recent advances in human dynamics, civil rights legislation and information technology.

The course of study consists of an extensive overview of the criminal justice system and an intensive examination of each of the major components of the system. The program is designed to serve students who may elect to enter the criminal justice profession immediately upon graduation, students of the liberal arts without professional interest in criminal justice, and students who desire to pursue graduate work. Criminal Justice majors are able to apply for an internship in a criminal justice related organization during their junior year.

To request an application form, please call the Admissions Office at 508-929-8040.

Requirements for a Major: 39 credits in criminal justice, of which 21 must be completed at Worcester State University.

Major Core: 18 credits

- CJ 101 Introduction to Criminal Justice
- CJ 102 Introduction to Corrections
- CJ 111 Law Enforcement and Society
- CJ 203 Theories of Crime
- CJ 205 American Judicial System
- CJ 331 Research Methods in Criminal Justice

Criminal Justice Electives: 21 credits

Sample Timeline for Completion of Degree: Criminal Justice

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
LASC	First-Year Seminar	3
EN 101	English Composition I	3
CJ 101	Introduction to Criminal Justice	3
MA	MA 099 or higher based on Accuplacer score	3
LASC	Constitutions	3
	Semester Subtotal	**15**

Semester Two		
Course No.	**Course Name**	**Credits**
EN 102	English Composition II	3
LASC	Thought, Language and Culture (TLC)	3
CJ 102	Introduction to Corrections	3
CJ 111	Law Enforcement and Society	3
LASC	Quantitative Reasoning (QR)	3
	Semester Subtotal	**15**
Comments		

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
CJ 203	Theories of Crime	3
CJ 205	American Judicial System	3
LASC	Global Perspective (GP)	3
LASC	Human Behavior and Social Processes (HBS)	3
LASC	The United States and Its Role in the World (USW)	3
	Semester Subtotal	**15**

Semester Four		
Course No.	**Course Name**	**Credits**
CJ	Elective Course in Major	3
CJ	Elective Course in Major	3
LASC	Natural Systems and Processes (NSP)	4
LASC	Creative Arts (CA)	3
LASC	Individual and Community Well-Being (ICW)	3
	Semester Subtotal	**16**

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
CJ	Elective Course in Major	3
CJ	Elective Course in Major	3
LASC	Natural Systems and Processes (NSP)	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Semester Six		
Course No.	**Course Name**	**Credits**
CJ 331	Criminal Justice Research Methods	3
CJ	Elective Course in Major	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
LASC/CJ 400	Capstone	3
CJ	Elective Course in Major	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Semester Eight		
Course No.	**Course Name**	**Credits**
CJ	Elective Course in Major	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

Requirements for a Minor: 7 courses comprising 4 core courses and three electives.

Core Courses:
CJ 101 Introduction to Criminal Justice
CJ 102 Introduction to Corrections
CJ 111 Law Enforcement and Society
CJ 205 American Judicial System
Plus
Criminal Justice Electives: 3 courses

Students will need to obtain a Declaration of Major/Minor from the Registrar's Office and obtain signature of CJ Department Chair.

Criminal Justice Courses

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

CJ 101 Introduction to Criminal Justice

A survey of the American Criminal Justice System as a socio-political institution. The police, criminal courts, and correctional and rehabilitative endeavors will be analyzed within the framework of empirical research from the perspectives of the social sciences. Required of all first-year students in the Criminal Justice major.
Offered every year. 3 Credits.

CJ 102 Introduction to Corrections

Prerequisite: CJ 101 or its equivalent.

An in-depth examination of the American Correctional System. Traditional punitive measures will be analyzed in relation to current reintegration alternatives. (formerly CJ 202)
Offered every year. 3 credits.

CJ 111 Law Enforcement and Society

Prerequisites: CJ 101 or its equivalent

The structure and function of law enforcement agencies in contemporary society will be analyzed in their sociological context. Particular emphasis will be placed on the role of the police within the framework of the Criminal Justice System. (formerly CJ 201)
Offered every year. 3 Credits.

CJ 193 Special Topics in Criminal Justice for First-Year Students

All "193" courses are approved for LASC but may vary by section. See current course listing for specific LASC area approval.

Introductory level course covering topics of special interest to first-year students. Offered only as a First-Year Seminar.
Offered every year. 3 credits.

CJ 203 Theories of Crime

Prerequisite: CJ 101

An exploration of prominent theories of crime causation, ranging from biological, psychological, sociological, and cultural explanations. Theories are compared and contrasted and implications are discussed as foundations for criminal justice system policy. (formerly CJ 121)
3 Credits.

CJ 205 American Judicial System

Prerequisite: CJ 101 or its equivalent.

An examination of the development of law and the American legal system, including the problems related to the meaning and uses of law; the organizational hierarchy of the courts; and the role of the courts in the criminal justice system.
Offered every year. 3 credits.

CJ 215 Art Crimes

LASC – Thought, Language and Culture; Human Behavior and Social Processes

This course explores a variety of criminal offenses involving the production, consumption, distribution, and display of art, including graffiti/street art, forgery, theft, vandalism, rights infringement, and indecent and politically subversive art. The course examines these offenses from an interdisciplinary perspective, including law, criminology, aesthetics, economics, and cultural studies. Art crimes are examined from the international level to the local one. (This course does not count as a Criminal Justice elective for Criminal Justice majors)
3 credits.

CJ 301 Juvenile Procedure

Prerequisites: CJ 101, CJ 201/CJ 111, CJ 202/CJ 102, CJ 205, or their equivalent.

An examination of the underlying philosophy of juvenile justice and procedures used to process a juvenile alleged to be delinquent through the juvenile justice system. The course will focus on the differences between juvenile procedure and adult criminal procedure by examining recent court decisions and statutory law pertaining to juveniles.
3 credits.

CJ 302 Criminal Law

Prerequisite: CJ 101, CJ 201/CJ 111, CJ 202/CJ 102, CJ 205, or their equivalent.

The function of criminal law and its relationship to various criminal offenses, including crimes against persons and crimes against property.
3 credits.

CJ 303 Patterns of Criminality

Prerequisites: CJ 101, CJ 201/CJ 111, CJ 202/CJ 102, CJ 205, or their equivalent.

The U. S. Department of Justice Index Crimes will be studied along with other crimes; which will be selected on the basis of their contemporary administrative significance and their effect on the criminal justice system in particular.
3 credits.

CJ 304 Prevention and Control

Prerequisites: CJ 101, CJ 201/CJ 111, CJ 202/CJ 102, CJ 205, or their equivalent.

An in-depth examination of the criminal justice system and the efforts it has exerted in an attempt to prevent and control criminal behavior. Course will focus on the traditional methods including probation and parole as well as recent trends in crime control and prevention: the utilization of community based treatment programs and attempts by many criminal justice agencies to avoid the processing of individuals through the system.
3 credits.

CJ 305 Principles of Evidence and Proof

Prerequisites: CJ 101, CJ 201/CJ 111, CJ 202/CJ 102, CJ 205, or their equivalent.

The study of the different types of evidence, relevance, the hearsay rule and its exceptions, impeachment and cross-examination and privileged communications.
3 credits.

CJ 306 Contemporary Problems in Corrections

Prerequisites: CJ 101, CJ 201/CJ 111, CJ 202/CJ 102, CJ 205, or their equivalent.

An intensive analysis of selected problems in institutional and community corrections.
3 credits.

CJ 307 Contemporary Problems in Law Enforcement

Prerequisites: CJ 101, CJ 201/CJ 111, CJ 202/CJ 102, CJ 205, or their equivalent.

An intensive analysis of selected problems in American law enforcement and police-community relations. A major research paper is required.
3 credits.

CJ 310 Organized and White Collar Crime

Prerequisites: CJ 101, CJ 201/CJ 111, CJ 202/CJ 102, CJ 205, or their equivalent.

The methods through which organized crime influences and, in many instances, controls entire communities. Traditional types of crime heavily influenced by organized crime, such as loan sharking and gambling, will be analyzed in an effort to demonstrate the basis of power and wealth of organized crime in the United States.
3 credits.

CJ 311 Victimology

Prerequisites: CJ 101, CJ 201/CJ 111, CJ 202/CJ 102, CJ 205, or their equivalent.

Criminal-victim relationships, with emphasis on victim-precipitated crimes and compensation to the victims. Consideration is given to: concept and significance of victimology; time, space, sex, age, and occupational factors in criminal-victim relationships; victims of murder, rape, other violent crimes and property crimes; victim typology; the public as victim; restitution and compensation to victims.
3 credits.

CJ 312 Women and the Law

Prerequisites: CJ 101, CJ 201/CJ 111, CJ 202/CJ 102, CJ 205, or their equivalent.

An examination of the female and her involvement with the legal processes in the United States. Attention will be focused on the female as the offender and as the victim. Analysis of the various theoretical approaches to understanding the female offender will be presented in addition to an exploration of the recent literature on the female and the criminal justice system.
3 credits.

CJ 314 Seminar on Offender Rehabilitation

Prerequisites: CJ 101, CJ 201/CJ 111, CJ 202/CJ 102, CJ 205, or their equivalent.

The "nothing works" doctrine generated by the controversial Martinson Report has resulted in considerable confusion regarding the effectiveness of corrections programs designed to elicit specific behavioral changes on the part of the correctional client. This course will thoroughly examine the debate surrounding the "nothing works" doctrine and present those methods of rehabilitation that have proven effective in the treatment of offenders. Probation, parole and programs for the incarcerated offender will be the primary focus of this course.
3 credits.

CJ 316 Civil Liabilities of Criminal Justice Professionals

Prerequisites: CJ 101, CJ 201/CJ 111, CJ 202/CJ 102, CJ 205, or their equivalent.

The civil liability for harm inflicted on another. Topics to be considered will include: intentional torts such as assault, battery, and false imprisonment; negligence; torts of strict liability; libel, slander and defamation; liability of owners and occupiers of land; and the liability of state and federal employees for harm caused in their respective professional capacities.
3 credits.

CJ 317 Evolution of American Law Enforcement

Prerequisites: CJ 101, CJ 201/CJ 111, CJ 202/CJ 102, CJ 205, or their equivalent.

A critical analysis of the contemporary American law enforcement establishment in relation to the evolutionary forces that have contributed to its development. Excepting modern technology, the law enforcement function tends to run in predictable cycles. Traditional in origin, these cyclical phenomena may be observed in the patters of older societies. Reflections of the past are deemed vital to a more objective and well-rounded perception of current issues.
3 credits.

CJ 319 Economic Crime

Prerequisites: CJ 101, CJ 201/CJ 111, CJ 202/CJ 102, CJ 205, or their equivalent.

The manner in which professionals in business are able to manipulate and control computer systems and engage in various types of while collar crime will be examined. Emphasis will be placed on consumer and computer fraud, embezzlement, and particular attention will be focused on corporate crime and on the criminal justice system's attempts to identify, prevent, and control it.
3 credits.

CJ 320 Criminal Procedure: Fourth Amendment Rights of the Accused

Prerequisites: CJ 205, or its equivalent; or permission of the instructor.

A study of due process, the exclusionary rule, and the legal problems associated with arrests, searches, and seizures.
3 credits.

CJ 321 Criminal Procedure: Fifth and Sixth Amendment

Prerequisite: CJ 205, or its equivalent; or permission of the instructor.

A study of the legal problems associated with interrogations, confessions, entrapment, lineups and wiretapping and electronic surveillance.
3 credits.

CJ 322 Gangs

Prerequisite: Junior standing

This course will offer an in-depth study of gangs in the United States. Topics to be examined include various theories of gang formation, group dynamics, and individual factors associated with gang membership. Attention will also be given to the different types of gangs that exist. Given these dynamics, the final portion of the course will focus on prevention and intervention efforts aimed at reducing gang behavior.
3 Credits.

CJ 323 Religion and Crime in Contemporary America

This course will serve as an introduction to issues related to religion and the criminal justice system. Topics will include the religious origins of the legal and correctional systems, religion and contemporary law, religion in prison and corrections, hate crimes and terrorism.
3 Credits.

CJ 324 Restorative Community Justice

Prerequisite: Junior standing

Restorative Community Justice is based on a new vision of criminal justice that stresses offender reintegration through offender accountability. Rather than simply a legal violation, crime is viewed as a breach in the relationship between the offender and the victim, and also the offender and the community. To the greatest degree possible, resolution should rest in the hands of those most directly involved, with the state mediating the conflict. This course will explore the philosophy of restorative justice, and current practices of victim-offender mediation, where the offender is required to directly confront the person(s) harmed, and the victim is given a real voice. It will examine how offenses can be resolved in ways that are positive and constructive for victims, communities, and also for offenders. The student will develop an understanding of the basic tenets of restorative justice, and also knowledge of how this concept is being applied in criminal justice practices in the U.S. and internationally.
3 Credits.

CJ 325 Capital Punishment

This course focuses on capital punishment law, particularly United States Supreme Court decisions addressing constitutional issues relevant to the death penalty. Students also will explore empirical, penological, political, and moral issues related to the death penalty and its administration.
3 Credits.

CJ 329 Crime and the Media

The course will deal with issues related to the mass media and crime in society. The increasing importance of the mass media in shaping peoples perception of and attitudes toward the criminal justice system will be focused on. Other topics will include the media as a cause and cure for crime, biases in the media coverage, the effects of the media on criminal proceedings and crime on television and films.
3 Credits.

CJ 330 Criminal Justice Administration

Prerequisites: CJ 101, CJ 201/CJ 111, CJ 202/CJ 102, CJ 205, or their equivalent.

An examination of organizational theory and its applications within criminal justice agencies. Consideration of the principles of organization and methods adopted by progressive agencies to insure effective criminal justice service to the community will be reviewed.
3 credits.

CJ 331 Research Methods in Criminal Justice

Prerequisites: CJ 101, CJ 201/CJ 111, CJ 202/CJ 102, CJ 205, or their equivalent.

An introduction to scientific methodology as related to criminal justice. The course will focus on the development of hypotheses, data collection, data analysis and hypothesis verification. Attention is also given to basic statistical techniques appropriate for criminal justice research.
Offered every year. 3 credits.

CJ 332 Homicide

Prerequisites: CJ 101, CJ 201/CJ 111, CJ 202/CJ 102, CJ 205, or their equivalent.

An in-depth discussion of the legal definitions of and rationalizations for homicide. The statistical aggregates of those occasions will be considered in terms of demographic and ethno-cultural phenomena. The murder episode is examined within the context of morality.
3 credits.

CJ 333 Terrorism

Prerequisites: CJ 101, CJ 201/CJ 111, CJ 202/CJ 102.

This course will explore the development of terrorism as a form of crime. Topics to be studied include major terrorist groups and their strategies, tactics and targets, jurisdictional issues, anti-and counter-terrorist operations, federal law enforcement, and future trends in terrorism.
3 credits.

CJ 334 Drugs, Crime and Society

Prerequisites: CJ 101

This course will present an overview of the problems of drug-related crime in contemporary society. Specific drug substances are discussed, as well as legal, cultural, and social factors in connection with drug enforcement, prevention and policy, and the effects on society.
3 credits.

CJ 335 Comparative Criminal Justice Systems

Prerequisites: CJ205

Increasingly, practitioners in the American criminal justice systems are required to interact with their counterparts, as well as citizens from other national jurisdictions. Effective interaction, including cooperation and sharing, requires some understanding of how criminal justice is conceived and practiced in other parts of the world. This course examines and compares key institutions of the criminal justice systems in six model countries, two in Europe, two in Asia, one Islamic nation, and one from Latin America. We look not only at formal organizations in each country, but also at actual practices and how they compare with each other and the United States. To understand how differences and similarities have developed, we also learn something of the history, culture, political system and economic conditions of each model country.
3 Credits.

CJ 337 Criminal Justice Ethics

This course investigates the application of moral logic to problems in the field of Criminal Justice. Issues related to policing, criminal prosecution, and corrections will be studied. Students will be encouraged to induce general moral precepts and rules from the examination of particular situations and problems.
3 Credits.

CJ 338 Issues in Contemporary Security

Prerequisite: Junior standing

An overview of security systems applicable to contemporary industrial and commercial demands. Losses through physical, technological, and personnel hazards are viewed as preventable phenomena if vulnerabilities are recognized and ameliorative measures taken. Counter-measures will be weighed within the framework of loss criticality and cost of effectiveness.
3 Credits.

CJ 339 Probation, Parole, and Community Corrections

This course will present an overview of correctional options in the community. It will challenge students to consider how sanctions for criminal offenders can be managed in the community without unduly sacrificing community safety or the integrity of the justice system. Community Corrections is a fluid and continually changing field. The focus will be on main themes and trends in probation and parole. Specific attention will be given to the dual an often conflicting goals of community protection and positive offender change with which the practitioner is typically confronted, the types of policies and programs implemented to meet these goals, and their effectiveness.
3 Credits.

CJ 340 - 349 Special Topics in Criminal Justice

An in-depth study of a limited or specialized area within the criminal justice field. Course content will vary according to the area of specialization of the instructor and the interest of the students. May be repeated if course content differs.
3 credits.

CJ 352 Principles of Investigation

Prerequisite: CJ 101 and CJ 201/CJ 111/CJ 111

This course provides students with a theoretical framework for the practice of investigation in both the private and public sectors. Various techniques and protocols for investigation will be explored including infractions and ethics investigations and background investigations. Students will link these methods to the collection of physical evidence, interpretation and preservation of data, rules of evidence, techniques of documentation, along with interview and interrogation approaches.
3 credits

CJ 371 Strategic Planning

Prerequisite: Junior standing

This course is designed to acquaint students with general theories of planned change at the individual, organizational, and community levels. Special attention will be given to the need for employee involvement and collaboration in working toward organizational goals, with reference to concepts such as reinventing government and total quality management. The emphasis will be on applied theory. Students will be expected to develop their own ideas for change in the fields of policing, courts, or corrections. They would then be required to consider the resistances that would likely arise as their changes are introduced, and how they should best be dealt with, considering planned change theories from the course.
3 Credits.

CJ 384 Adult Offenders: Case Studies

Prerequisite: Junior standing.

A critical, theoretical examination of certain types of adult offenders, especially those who are socially disadvantaged. This examination will be based largely upon the analysis of qualitative research studies that have been done with adult offenders. Special attention is given to the case study method and to understanding adult offenders as individuals making choices within the constraints of larger political, economic, social and ideological structures.
3 credits.

CJ 385 Juvenile Offenders: Case Studies

Prerequisite: Junior standing.

A critical, theoretical examination of various types of juvenile offenders. This examination will be based largely upon the analysis of qualitative research studies that have been done with juveniles. Special attention is given to the case study method and to understanding juvenile offenders as individuals embedded within and influenced by numerous social structures (e.g., gender, race, family, school and economics).
3 credits.

CJ 398 Field Practicum in Criminal Justice

Prerequisite: Permission of the instructor.

The field practicum class involves the student's participation in the day-to-day functions of a publicly funded criminal justice agency. The course is designed to provide students with an opportunity to translate the theoretically oriented classroom experience into practical application.
3-6 credits.

CJ 399 Independent Study

Prerequisite: Permission of the instructor.

Individual research and independent study related to particular aspect of criminal justice that is of special interest.
3-6 credits.

CJ 400 Criminal Justice Capstone

LASC - Major Capstone

Provide students the opportunity to engage in a culminating experience in which they use critical thinking skills to analyze, integrate, and synthesize the knowledge gained in their major program of study. Students will apply that knowledge and critical thinking skills to the exploration of issues and concerns/problems of the profession in preparation of future employment and/or graduate education.
3-6 credits.

Economics

Department of Business Administration and Economics

Faculty

Wei Pang Lee, Professor (1992), Department Chair
B.A., Soochow University, Taipei, Taiwan; M.B.A., Northwest Missouri State University; Ph.D., University of Georgia, Athens

William F. O'Brien, Jr., Professor (1997)
B.S., Worcester State College; M.A., Ph.D., Northeastern University

Bonnie Orcutt, Professor (2003) (on leave)
B.S., Worcester State College; M.A., Ph.D., Clark University

Elizabeth J. Wark, Professor (2007)
B.A., Mount Holyoke College; M.B.A., University of Massachusetts; M.A., Ph.D., Clark University

Janice G. Yee, Professor (2007)
B.A., University of Massachusetts Dartmouth; M.A., Ph.D., Clark University

The economics program is designed to help students understand the world they live in, analyze important social issues, and adapt to a changing economic climate.

The BS in Economics will provide each student with knowledge of current economic thought and will develop students' understanding of the role played by economic institutions in society. Having completed a thorough program integrating economic theory and practice, students will be prepared to effectively participate in society as informed citizens to promote social well-being. Students will be prepared to succeed in a wide array of positions in business, government, and nonprofit organizations and will be able to successfully pursue graduate work in economics and related fields, predominately at the Masters level. Qualified majors will have an opportunity for honors and advanced coursework, intensive faculty interactions, national and regional competitions and activities, and economic research.

Graduates with a BS in Economics will be able to:

- Demonstrate the ability to present orally and in writing a coherent, logical economic argument grounded in economic theory.
- Read and assess articles on economic topics.
- Articulate orally and in writing the core economic principles, concepts and theories that form the foundation for economic analysis and economic research.
- Investigate economic issues by synthesizing, building, and using theories/ models to predict the behavior of economic agents.

- Evaluate economic issues and real world problems through data analysis and the application of appropriate statistical techniques, quantitative and/or qualitative methods.

The Minor in Economics provides students with an excellent background for work in business fields such as banking, insurance, finance and accounting. Combining an Economics Minor with a B.S. degree in Business Administration helps to give students an edge in the marketplace. The Minor in Economics is equally appropriate for work in the private section, in the not-for-profit section and in the public sector at the federal, state, or local level. The minor may also help to prepare students for careers in teaching, journalism, and law, as well as for admission to graduate programs in public policy, law, business, international relations, journalism and related fields.

Omicron Delta Epsilon, the international honor society in economics, is available to outstanding students.

Requirements for a Major in Economics: 33 credits with EC designation

EC 110	Introduction to Microeconomics
EC 120	Introduction to Macroeconomics
EC 150	Statistics (or another acceptable statistics course)
EC 200	Intermediate Macroeconomics
EC 201	Intermediate Microeconomics

One of the following:

EC 202	Introduction to Mathematical Economics
EC 306	Introduction to Econometrics (or a course in which calculus is a primary topic)

The remaining 15 (or more) credits may be chosen from economics electives in accordance with special interests and career objectives.

Students are encouraged to take an internship if their program permits.

Requirements for a Minor: 18 credits

EC 110	Introduction to Microeconomics
EC 120	Introduction to Macroeconomics

PLUS Any four additional Economics courses

BA courses that will count towards the major or minor in Economics:
Students pursuing a major or minor in Economics may elect to use **ONE** of the following BA courses to count towards their electives in the EC major/minor that may also count within the electives of the BA minor. (Note: There are 15 credits of electives in the EC major, 12 credits of electives in the EC minor, and 12 credits of electives in the BA minor.)

BA 316	Financial Management
BA 404	Corporate Finance
BA 415	Investment Analysis
BA 416	Financial Markets and Institutions

EC courses that will count towards the major in Economics and the minor in Business Administration:
Students pursuing a major in Economics and a minor in Business Administration may use ONE of the following EC courses to count both within the 12 credits of elective courses for the BA minor AND within the 15 credits of electives for the EC major.

EC 205	Money, Banking and Monetary Policy
EC 301	Economic Development
EC 307	International Finance
EC 308	International Trade

EC courses that will count towards the major in Business Administration and a minor in Economics:
Students pursuing a major in Business Administration and a minor in Economics may use **TWO** of the following EC courses to count in both within the 12 credits of elective courses for the BA major AND within the 12 credits of electives for the EC Minor:

EC 205	Money, Banking and Monetary Policy
EC 301	Economic Development
EC 307	International Finance
EC 308	International Trade

EC courses that will count towards the major in Business Administration:
Students pursuing a major in Business Administration may use **TWO** of the following EC courses to count within the 12 credits of electives for the General Business concentration.

EC 205	Money, Banking and Monetary Policy
EC 301	Economic Development
EC 307	International Finance
EC 308	International Trade

EC courses that will count towards meeting the requirements of the International Business concentration:

EC 301	Economic Development
EC 307	International Finance
EC 308	International Trade

EC courses that will count towards meeting the requirements of the Finance Concentration:

EC 205	Money, Banking and Monetary Policy
EC 307	International Finance.

BA courses and EC courses that will count towards meeting the requirements of a double major in Business Administration and in Economics:
Students pursuing a double major in Business Administration and Economics may use:
TWO of the following EC courses to count within the 12 credits of elective (concentration) courses for the BA major, and
ONE of the following BA courses to count within the 15 credits of elective courses for the EC major.

EC 205	Money, Banking and Monetary Policy	BA 316	Financial Management
EC 301	Economic Development	BA 404	Corporate Finance
EC 307	International Finance	BA 415	Investment Analysis
EC 308	International Trade	BA 416	Financial Markets and Institutions

Sample Timeline for Completion of Degree: Economics (for All Students Entering in Fall 2012 or Later)

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
LASC	First-Year Seminar	3
EN 101	English Composition I (WR)	3
EC 120	Introduction to Macroeconomics	3
EC 150	Statistics (or acceptable statistics course)	3
LASC	Thought, Language and Culture (TLC)	3
	Semester Subtotal	**15**

Semester Two		
Course No.	**Course Name**	**Credits**
EN 102	English Composition II (WR)	3
LASC	Constitutions (CON)	3
EC 110	Introduction to Microeconomics	3
LASC	Quantitative Reasoning (QR)	3
LASC	The United States and Its Role in the World (USW)	3
	Semester Subtotal	**15**

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
EC	Economics Elective (#1)	3
LASC	Creative Arts (CA)	3
LASC	Natural Systems and Processes (NSP)	4
SELECT	General Elective	3
LASC	Human Behavior and Social Processes (HBS)	3
	Semester Subtotal	**16**

Semester Four		
Course No.	**Course Name**	**Credits**
EC	Either EC 202 or 306	3
EC	Economics Elective (#2)	3
LASC	Natural Systems and Processes (NSP)	3-4
LASC	Global Perspectives (GP)	3
LASC	QR Course	3
	Semester Subtotal	**15-16**

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
EC 201	Intermediate Microeconomics	3
EC	Economic Elective (#3)	3
SELECT	General Elective	3
SELECT	General Elective	3
LASC	Individual and Community Well-Being (ICW)	3
	Semester Subtotal	**15**

Semester Six		
Course No.	**Course Name**	**Credits**
EC 200	Intermediate Macroeconomics	3
EC	Economic Elective (#4)	3
LASC	Choose One: DAC or WAC or QLAC	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments	Students need 1 DAC, 1 WAC and 1 QLAC	

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
LASC/EC	Capstone course or Elective #5	3
LASC	See Comment Below	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments	Students need 1 DAC, 1 WAC and 1 QLAC	

Semester Eight		
Course No.	**Course Name**	**Credits**
EC	Capstone course or Elective #5	3
LASC	See Comment Below	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments	Students need 1 DAC, 1 WAC and 1 QLAC	

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

Economics Courses

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

EC 102 Consumer Economics

LASC—Individual and Community Well-Being

An in-depth study of personal and family economics, obtaining income, buying wisely, consumer borrowing, saving, and financial investment; the consumer protection and consumer legislation movements will be specifically emphasized.
Offered every 2 years. 3 credits.

EC 104 Personal Financial Planning

LASC—Individual and Community Well-Being

An investigation of the major vehicles for our personal savings: bonds, stocks, mutual funds, real estate, and retirement and estate planning.
Offered every year. 3 credits.

EC 110 Introduction to Microeconomics

LASC—Human Behavior and Social Processes

An introduction to the operation of the American market system and to the behavior of its participants whether consumers, producers, the government, or other nations engaged in international trade with the United States.
Offered every year. 3 credits.

EC 120 Introduction to Macroeconomics

LASC—Human Behavior and Social Processes

Introduction to economic analysis with particular emphasis upon the national problems of achieving and maintaining full employment, general price stability, and growth of the American economy through time.
Offered every year. 3 credits.

EC 130 Selected Topics

Selection of topics of mutual interest to student and faculty. Timely topics and issues will be covered.
Offered every 2 years. 1-3 credits.

EC 150 Statistics

LASC—Quantitative Reasoning

Prerequisites: EC 110 or EC 120, and Accuplacer code of 4

Basic tools of statistical analysis appropriate to research in the social sciences; topics include measures of central tendency, hypothesis testing, time series, index numbers, regression and correlation.
Offered every year. 3 credits.

EC 193 Special Topics in Economics for First-Year Students

All "193" courses are approved for LASC but may vary by section. See current course listing for specific LASC area approval.

Introductory level course covering topics of special interest to first-year students. Offered only as a First-Year Seminar.
Offered every year. 3 credits.

EC 200 Intermediate Macroeconomics

Prerequisites: EC 110, EC 120 and minimum sophomore status

An intermediate analysis of the determination of the level and growth of national income and employment, special attention given to the problems of inflation and recession and to the national fiscal and monetary policies designed to maintain full employment and stable price levels.
Offered every year. 3 credits.

EC 201 Intermediate Microeconomics

Prerequisite: EC 110, EC 120 and minimum sophomore status

An intermediate level treatment of the theory of market pricing in a private enterprise system as it affects the resource and output decision of firms and industries under various market structures and the behavior of consumers.
Offered every year. 3 credits.

EC 202 Introduction to Mathematical Economics

Prerequisites: EC 110, EC 120; MA 110 with a grade of C- or above or an Accuplacer code of 6

A survey of some basic mathematical techniques appropriate to the analysis of economic models and application of economic theory.
Offered every year. 3 credits.

EC 205 Money, Banking, and Monetary Policy

Prerequisites: EC 110, EC 120

A study of the roles of money, depository institutions, and central bank monetary policy in maintaining stable growth of the American economy.
Offered every year. 3 credits.

EC 206 Urban Economics

Prerequisites: EC 110, EC 120

The theory and policy of the growth and development of metropolitan areas; some of the policy-related problems discussed are poverty, residential and commercial land use, and traffic congestion.
Offered every 3 years. 3 credits.

EC 208 Economics of Health Care

LASC—Individual and Community Well-Being; Writing Across the Curriculum

Prerequisites: EC 110, EN 102

Introductory study of the health care industry of the United States; pricing of health care, manpower availability, alternative delivery systems, third party payments, and government role in planning, regulating, and financing health care.
Offered every year. 3 credits.

EC 210 Current Economic Issues

Prerequisites: EC 110, EC 120

This course is designed to connect economic knowledge and theory acquired at the introductory level to current economic issues and policy. National and international topics of importance will be considered. For example, pollution, trends in productivity, profitability and distribution, debt and deficits, patterns of investment, trade, and globalization and the economic issues of race, gender and poverty may be covered.
Offered every year. 3 credits

EC 215 Labor Economics

Prerequisites: EC 110, EC 120

A study of the process of wage determination in a market economy, consideration given to the evolution of union organization and collective bargaining affecting wages, hours, working conditions, and grievance procedures for labor.
Offered every 2 years. 3 credits.

EC 301 Economic Development

Prerequisites: EC 110, EC 120

A survey of contemporary economic theories concerning less developed countries; social, cultural, and political forces shaping the development of such countries are also investigated.
Offered every 3 years. 3 credits.

EC 302 Development Planning and Regional Economics

Prerequisites: EC 110, EC 120

A survey of the problems that must be dealt with by less-developed countries in planning their economic development. Theories of regional economics applicable to both developed and less developed economies.
Offered every 3 years. 3 credits.

EC 304 Economics of the Environment

Prerequisites: EC 110, EC 120

Methods of pollution control and the socio-economic problems caused by pollution, current research on ecology and economics, and the impact that limits on pollution may have on income and population growth.
Offered every 2 years. 3 credits.

EC 306 Introduction to Econometrics

Prerequisites: EC 110, EC 120, MA 150 or EC 150

The application of statistical techniques to the verification of economic models and examination of economic problems.
Offered every 2 years. 3 credits.

EC 307 International Finance

Prerequisites: EC 110, EC 120

Study of how international trade and investment is financed in a world of floating, fixed and managed exchange rate systems.
Offered every 2 years. 3 credits.

EC 308 International Trade

LASC—Global Perspectives

Prerequisites: EC 110, EC 120

Reasons why nations gain by spatial specialization and exchange with other countries. Analysis of the mechanism by which international equilibrium is restored. Study of trade and foreign exchange policies.
Offered every 2 years. 3 credits.

EC 309 Public Spending and Taxation

Prerequisites: EC 110, EC 120

Analysis of government spending, revenue sharing and taxation; includes the impact of government spending upon efficient use of resources and national growth.
Offered every 2 years. 3 credits.

EC 310 Public Choice

Prerequisites: EC 110, EC 120

The economic analysis of government decision-making. Voting systems, special interest groups, log rolling, rent seeking, bureaucracy and multidimensional versus single issue constituencies.
Offered every 3 years. 3 credits.

EC 312 Natural Resource Economics

Prerequisites: EC 110, EC 120

The use of renewable and non-renewable natural resources in a market economy and the role of government policy concerning them.
Offered every 3 years. 3 credits

EC 400 Independent Study in Economics

Prerequisites: EC 200, EC 201 OR permission of Instructor

For the student whose needs cannot be fully met by available offerings; actual arrangements to be made between student and professor; not intended for general enrollment; a limit of three credits can be acquired.
Offered every year. 1-3 credits.

EC 401 Seminar

Prerequisites: EC 200, EC 201 OR permission of Instructor

A research and discussion process intended to summarize and provide some career orientation to the undergraduate preparation of the economics major at the senior class level.
Offered every 2 years. 3 credits

EC 402 Internship in Economics

Prerequisites: EC 200, EC 201 OR permission of Instructor

Practical experience in economic analysis with industry, non-profit organizations, government agencies; internships may be of varying length.
Offered every year. 1-12 credits.

EC 403 Special Topics in Economics

Prerequisites: EC 200, EC 201 OR permission of Instructor

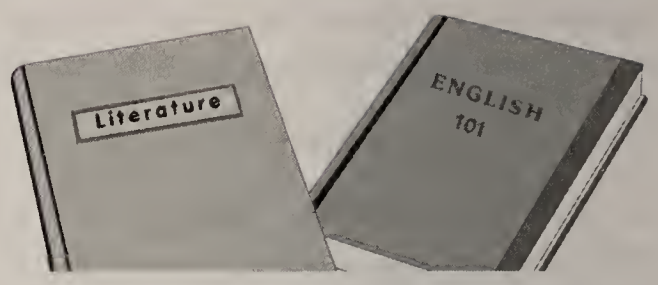
Covers selected topics in economics of mutual interest to the student and faculty.
Offered every 2 years. 1-3 credits.

EC 490 Capstone in Economics

LASC - Major Capstone

Prerequisites: EC 110, 120, 200, 201, OR permission of Instructor

This course serves as an integrative capstone course for the economics major and should normally be taken during the student's last two semesters of study. Basic tools and methods of economics are used to understand and analyze a variety of contemporary economic problems and policy issues.
Offered every other year. 3 credits.



English
Department of English

Faculty

Elizabeth Bidinger, Associate Professor (2007)
A.B., University of Michigan; M.A., Boston University; Ph.D., University of Connecticut

Charles Cullum, Professor (2014)
B.A., Penn State University, University Park, PA; M.A., Ph.D., Temple University

James E. Foley, Associate Professor (1999)
B.A., Tufts University; M.A., Ph.D., Indiana University, Bloomington

Ruth P. Haber, Associate Professor (1989)
B.A., M.A., Ph.D., University of California, Santa Barbara

Matthew Ortoleva, Assistant Professor (2011)
B.A., Rhode Island College; M.A., Ph.D., University of Rhode Island

Dennis Quinn, Professor (1996), Department Chair
B.A., Worcester State College; M.A., Assumption College;
Ph.D., University of Massachusetts

Josna E. Rege, Professor (2006)
B.A., Harvard University; M.A., Ph.D., University of Massachusetts Amherst

MaryLynn Saul, Professor (1995)
B.S., M.A., Ph.D., Ohio State University

Richard E. Sullivan, Associate Professor (1968)
A.B., Providence College; M.A., Boston College

Heather Treseler, Assistant Professor (2011)
B.A., Brown University; Ph.D. University of Notre Dame

Donald W. Vescio, Jr., Associate Professor (1998)
A.B., State University of New York at Oswego; M.A., University of New Hampshire;
Ph.D. University of Rochester

Charles Wasilko, Associate Professor (1970)
A.B., Dickinson College; M.A., Harvard University

Cleve Wiese, Assistant Professor (2014)
B.A. Rhodes College; M.A., New York University; Ph.D., University of Texas at Austin

Karen Woods Weierman, Professor (2000)
B.A., Georgetown University; Ph.D., University of Minnesota

Sharon R. Yang, Professor (1999)
B.A., University of Massachusetts Lowell; M.A., Clark University;
Ph.D., University of Connecticut

The principal objectives of the English program are to help students to communicate clearly, logically and effectively; to use research methods intelligently; to analyze, interpret and enjoy literature; and to develop a perspective on the world that is informed by intensive study of literature and its critical methods. The program also seeks to familiarize students with the classics of world literature, emphasizing the major authors, works and literary movements which distinguish English and American literature. At the same time, the program seeks to introduce students to "alternative voices" in literature, voices that are new to the literary canon or that occupy a literary space outside of it. The intellectual growth of majors is carefully nurtured to ensure that they are prepared for diverse career paths, scholarly research, and success in graduate school. Moreover, reflecting the institution's historical mission, the English program provides guidance and support for future teachers of English.

Requirements for a Major: 36 credits in English (exclusive of EN 101 and EN 102) which must include the following:

EN 210	Survey of American Literature I or
EN 211	Survey of American Literature II
EN 220	Survey of English Literature I
EN 221	Survey of English Literature II
EN 255	Methods of Literary Studies
EN 360	Shakespeare I

Electives: 21 credits in English (including a minimum of 12 credits in 300 or 400 level literature courses).

Students declaring English as a major must demonstrate a competency in a foreign language at the intermediate level.

Sample Timetable for Completion of Degree: English

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
LASC	First-Year Seminar	3
EN 101	English Composition I	3
WL (LASC)	Beginning Language I (TLC*)	3
LASC	Quantitative Reasoning (QR)	3
LASC	The United States and Its Role in the World (USW)	3
	Semester Subtotal	**15**

Semester Two		
Course No.	**Course Name**	**Credits**
EN 102	English Composition II	3
LASC	Constitutions	3
WL (LASC)	Beginning Language II	3
EN 255	Methods of Literary Studies	3
LASC	Natural Systems and Processes (NSP)	3
	Semester Subtotal	**15**

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
EN 220	English Literature Survey I	3
WL	Intermediate Language I	3
LASC	Natural Systems and Process (NSP)	4
LASC	Human Behavior and Social Processes (HBS)	3
LASC	Creative Arts (CA)	3
	Semester Subtotal	**16**

Semester Four		
Course No.	**Course Name**	**Credits**
EN 221	English Literature Survey II	3
WL	Intermediate Language II	3
EN	Major Elective	3
SELECT	General Elective	3
LASC	Global Perspectives (GP)	3
	Semester Subtotal	**15**
Comments		

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
EN 210 or 211	American Literature Survey I or II	3
EN	Major Elective (300/400)	3
SELECT	General Elective	3
LASC	Individual and Community Well-Being (ICW)	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Semester Six		
Course No.	**Course Name**	**Credits**
EN 360	Shakespeare I	3
EN	Major Elective (300/400)	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments		

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
EN	Major Elective (300/400)	3
LASC/EN	Capstone	3
EN	Major Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Semester Eight		
Course No.	**Course Name**	**Credits**
EN	Major Elective (300/400)	3
EN	Major Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments		

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

Requirements for a Major in English, Concentration in Writing: 15 credits in writing courses (exclusive of EN 101 and EN 102) in addition to the 15 credits in Shakespeare (EN 360); surveys (EN 210 or EN 211; EN 220 and EN 221), and EN 255 required of all majors. The remaining 6 credits must be literature electives at the 300-level or above. The 15 credits in writing will be selected from the following:

EN 207	The Writer's Life
EN 250	Creative Thinking and Critical Writing
EN 251	Advanced Expository Writing
EN 252	Technical Writing
EN 253	Business Communications
EN 256	Creative Writing: Fiction
EN 258	Creative Writing: Nonfiction
EN 260	Creative Writing: Poetry I
EN 262	Creative Writing: Poetry II
EN 266	Journalism: Practice and Techniques
EN 267	Journalism: Advanced Newswriting
EN 268	Journalism: Feature Writing
EN 269	Journalism: Interpretive Reporting
EN 270	Journalism: Editing
EN 271	Journalism: Workshop
EN 272	News Reporting and Writing I
EN 275	Sportswriting

EN 281	Web Authoring and Publication
EN 341	Advanced Practices in Writing
EN 351	News Reporting and Writing II
EN 352	Practicum in Journalism
EN 353	Narrative Journalism
EN 354	Opinion Writing
EN 411	Theory and Teaching of Writing
EN 415	Technology and the Teaching of Writing
CM 366	Scriptwriting

A 3-6 credit internship in writing, whether in English (EN410 or EN 475) or other languages (FR 475 or SP 475)

Requirements for a Major in English, Concentration in Journalism: In addition to taking the required courses for the English major and two 300- or 400-level literature electives, students choosing the journalism concentration must take five journalism courses comprised of three required courses and two electives.

The required journalism courses are the following:

EN 107	Jounalism and Democracy
EN 272	News Reporting and Writing I
EN 416	Media Law and Ethics

The elective journalism courses are the following:

EN 268	Feature Writing
EN 270	Editing
EN 275	Sportswriting
EN 351	News Reporting and Writing II
EN 352	Practicum in Journalism
EN 353	Narrative Journalism
EN 354	Opinion Writing
EN 475	Internship in English (under supervision of faculty member who teaches journalism)

Prerequisites: EN 102 English Composition II (or equivalent LASC course), EN 107 Journalism and Democracy, and EN 272 News Reporting and Writing I are prerequisites for every journalism course except EN 270 Editing, which has only EN 102 English Composition II (or equivalent LASC course) as a prerequisite.

Women's Studies: English majors may elect an interdisciplinary concentration in women's studies. They must complete the requirements for the standard English major. They must have 15 credits in women's studies courses, with the English courses among them counting toward the major. For more information, see the Women's Studies section of this catalog.

Requirements for a Minor: 18 credits in English (exclusive of EN 101 and EN 102) which must include the following:

EN 210	Survey of American Literature I or
EN 211	Survey of American Literature II
EN 220	Survey of English Literature I
EN 221	Survey of English Literature II

English electives: 9 credits

Requirements for a Minor in Writing: 18 credits of writing beyond EN 101, EN 102, or EN 250. Students must take EN 207 A Writer's Life and at least two 300-level writing courses. The other 9 credits may be selected from any of the writing courses offered by the department, including, but not limited to, EN 251, EN 252, EN 253, EN 256, EN 258, EN 260, EN 262, EN 266, EN 267, EN 268, EN 269, EN 270, EN 271, EN 272, EN 275, EN 281, EN 351, EN 352, EN 353, EN 354. Other writing courses offered in other departments may be counted toward the minor with the permission of the Chair of the English Department. Each student must take at least one course designated a professional writing course.

The Writing Center

Worcester State University's Writing Center is located in Sullivan 306. Staffed by graduate assistants and peer tutors, the Writing Center's offerings include individual writing tutorials for undergraduate and graduate students; reference material and workshops to help candidates prepare for the Massachusetts Teacher Test; writing across the curriculum resource material for Worcester State University faculty; and online tutorials for a wide range of technology-based subjects.

The Writing Center is fully connected to the campus network and the World Wide Web. The Worcester State University OWL (Online Writing Lab), the Writing Center's online community, hosts a varied collection of reference materials useful for both the academic and business writer. In addition, faculty, students, and members of the greater Worcester community submit their work online and receive feedback and support within 72 hours.

Sessions with Writing Center staff can be arranged on an appointment, drop-in, or online basis, and all services are offered at no charge. For more information, visit the OWL at the following web address: www.worcester.edu/owl.

English Honor Society:

Lambda Iota Tau, an international honor society in literature, is available to outstanding junior and senior English majors and minors.

English Courses (Undergraduate)

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

EN 101 English Composition I

LASC—Writing I

Students learn to address audience and purpose as they develop an effective writing process. Instruction and practice in the process of composing expository essays. Emphasis on planning, drafting, revising and editing. [Required of all students unless exempted by the English Department.]
Offered every year. 3 credits.

EN 102 English Composition II

LASC—Writing II

Focuses on formal academic discourse and research methods, providing a foundation for writing in academic disciplines. A continuation of EN 101. Emphasis on critical thinking, stylistic analysis, argumentation, research and documentation. [Required of all students unless exempted by the English Department.]
Offered every year. 3 credits.

EN 105 Introduction to Literature

LASC—Thought, Language and Culture

A critical introduction to the principal genres of literature: poetry, drama, and fiction.
Offered every year. 3 credits.

EN/CM/GL 107 Journalism and Democracy

This course introduces students to the history of American journalism and the role of journalism in democratic and non-democratic societies.
Offered every year. 3 credits.

EN 130 Ancient Classics of Western Literature

LASC—Thought, Language and Culture

Greek and Roman literary masterpieces in translation, including Homer, Greek tragedy, Plato, Virgil and Roman comedy and satire.

Offered every 2 years. 3 credits.

EN 131 Great Works of Western Literature, Medieval to Modern

Continental masterpieces of the last millennium in translation by such writers as Dante, Cervantes, Voltaire, Dostoevsky, Baudelaire, and Kafka.
Offered every 2 years. 3 credits.

EN 132 World Literature: Survey of Asian, African and Latin American Literature

LASC—Global Perspectives; Thought, Language and Culture; Diversity Across the Curriculum

Representative poems, stories, plays, both ancient and modern, from Asia, Africa, and Latin America.
Offered every year. 3 credits.

EN 140 Introduction to Poetry

LASC—Thought, Language and Culture

Examination and appreciation of the techniques and types of poetry including the sonnet, the pastoral, the mock heroic, and the ode.
Offered every year. 3 credits.

EN 145 Introduction to Drama

LASC—Thought, Language and Culture

Theories and development of tragedy and comedy; plays of Sophocles to Eugene O'Neill as illustrations of these and related genres.
Offered every year. 3 credits.

EN 150 The Short Story

LASC—Thought, Language and Culture

Introduction to the art of the short story through analysis of representative works.

Offered every year. 3 credits.

EN 152 The Novelette

LASC—Thought, Language and Culture

The major practitioners of the novelette over the past century: Conrad, Mann, Kafka, Dostoyevsky, and others.
Offered every 3 years. 3 credits.

EN 156 Mythology

LASC—Thought, Language and Culture

Myths and legends of ancient Greece and Rome which form a part of the classical tradition in English literature.
Offered every year. 3 credits.

EN 158 Science Fiction

LASC—Thought, Language and Culture

The nature and function of nineteenth- and twentieth-century science fiction literature: Wells, Verne, Asimov, Bradbury, and others.
Offered every 2 years. 3 credits.

EN 160 The Literature of the Bible

LASC—Thought, Language and Culture

Biblical writings. Emphasis will be placed on the Old Testament.
Offered every 2 years. 3 credits.

EN 164 Fantasy, Faerie and Folk

LASC—Thought, Language and Culture

Recurrent themes, literary characteristics, and structure of folktales, faerie and fantasy.
Offered every 2 years. 3 credits.

EN 165 Oral Literature: The Art of Storytelling

LASC—Creative Arts; Thought, Language and Culture

An examination of representative types and stories from diverse cultures and of techniques and practices used by their storytellers.
Offered every 2 years. 3 credits.

EN 167 Literature and Human Rights

LASC—Global Perspectives; Diversity Across the Curriculum; Human Behavior and Social Processes

An analysis of international creative writing dealing with the subject of human rights. Resource persons from different fields will be utilized.
Offered every 3 years. 3 credits.

EN 168 Film and Literature

An examination of the fundamental, rhetorical techniques of film and literature to determine the similarities of and differences between the two forms of expression.
Offered every 2 years. 3 credits.

EN 169 Ethnic Literature in the U.S.

LASC—Thought, Language and Culture; United States and Its Role in the World; Diversity Across the Curriculum

Study of ethnic Literature in the U.S., focusing on African-American, Asian-American, Latino, and Native American writers
Offered every year. 3 credits

EN 170 The Search for Identity: Literature of Self-Discovery

LASC— Thought, Language and Culture; Diversity Across the Curriculum

Understanding the nature and power of fiction, the relation between problems of individual identity, and the operation of the imagination.
Offered every 3 years. 3 credits.

EN 172 Women and Literature

Explores basic issues and problems in literature by and about women.
Offered every 2 years. 3 credits.

EN 174 Women Poets

LASC— Thought, Language and Culture

A close reading and analysis of poetry written by women from a historical as well as a contemporary feminist perspective.
Offered every 3 years. 3 credits.

EN 190 Special Readings in Literature

An introductory literature course responsive to current interests or controversies.
Offered every year. 3 credits.

EN 193 Special Topics in English for First-Year Students

All "193" courses are approved for LASC but may vary by section. See current course listing for specific LASC area approval.

An introductory level course covering topics of special interest to first-year students. Offered only as a First-Year Seminar.
Offered every year. 3 credits.

EN 207 The Writer's Life

Students examine the role of the writer in society and map their own possible career paths as writers.
Offered every year. 3 credits.

EN 210 Survey of American Literature I

Prerequisite: EN 102

American literature, beginnings to the Civil War; colonial and federal periods, and the transcendentalists.
Offered every year. 3 credits.

EN 211 Survey of American Literature II

Prerequisite: EN 102

American literature since the Civil War; naturalism and realism.
Offered every year. 3 credits.

EN 220 Survey of English Literature I

Prerequisite: EN 102

The development of English literature from the beginnings to 1798. Required of all English majors.
Offered every year. 3 credits.

EN 221 Survey of English Literature II

Prerequisite: EN 102

The development of English literature from 1798 to the present. Required of all English majors.

Offered every year. 3 credits.

EN 230 Environmental Themes in Literature

This class explores environmental issues as presented in poetry, essays and novels, including such writers as Thoreau, Hemingway and Ann Tyler.
Offered every 3 years. 3 credits.

EN 240 Survey of Postcolonial and Transcultural Literature

LASC—Global Perspectives

Prerequisite: EN 102

Introduction to literatures in English from formerly colonized countries in Africa, Asia, and the Caribbean, and from the postcolonial diaspora.
Offered every year. 3 credits.

EN 250 Creative Thinking and Critical Writing

LASC—Thought, Language and Culture

Prerequisite: EN 102

This course promotes critical and creative thinking through exploring viewpoints of different professions, cultures and eras in various textual forms.
Offered every year. 3 credits.

EN 251 Advanced Expository Writing

Prerequisite: EN 102

Instruction and practice in writing expository essays. Analysis of selected readings on a common theme or subject area.
Offered every 3 years. 3 credits.

EN 252 Technical Writing

LASC—Writing Across the Curriculum

Prerequisite: EN 102

Focuses on how to write and produce basic documents, from research and progress reports to brochures and manuals.
Offered every year. 3 credits.

EN 253 Business Communications

Prerequisite: EN 102

A consideration of accepted business communication conventions; correspondence, memoranda, survey reports, proposals, interim reports, and project reports. [Open to Business Administration majors only.]
Offered every year. 3 credits.

EN 255 Methods of Literary Studies

LASC—Thought, Language and Culture

Prerequisite: EN 102

Introduction to critical methods of interpreting literature through examination of works by major authors.
Offered every year. 3 credits.

EN 256 Creative Writing: Fiction

LASC—Creative Arts

Prerequisite: EN 102

An opportunity to develop the student's writing ability and critical sense; work of students and professional authors will be analyzed.
Offered every year. 3 credits.

EN 258 Creative Writing: Nonfiction

LASC—Creative Arts

Prerequisite: EN 102

A course focused on memoir and narrative journalism; students analyze and create short works of nonfiction.
Offered every 2 years. 3 credits.

EN 260 Creative Writing: Poetry I

LASC—Creative Arts; Thought, Language and Culture

Prerequisite: EN 102

Developing the student's skill in the creation of poetry; attention to contemporary trends in American poetry.
Offered every year. 3 credits.

EN 262 Creative Writing: Poetry II

LASC—Creative Arts

Prerequisite: EN 102

Conversation with practicing poets; preparation of a small booklet of poems. EN 260 is not required as a prerequisite.
Offered every year. 3 credits.

EN 266 Journalism: Practice and Techniques

Prerequisite: EN 102

Training in developing, reporting, writing, and editing straight news, feature, profile, and interpretive stories.
Offered every year. 3 credits.

EN 267 Journalism: Advanced Newswriting

Prerequisite: EN 102

Provides advanced training in the development and writing of straight news stories.
Offered every 3 years. 3 credits.

EN/CM 268 Journalism: Feature Writing

Prerequisite: EN 102

Provides advanced training in finding, researching, developing, and writing feature stories for newspapers and magazines.
Offered every 3 years. 3 credits.

EN 269 Journalism: Interpretive Reporting

Prerequisite: EN 102

Provides advanced training in developing and writing profiles and interpretive stories.
Offered every 3 years. 3 credits.

EN/CM 270 Journalism: Editing

Prerequisite: EN 102

Training in copy selection, copy editing, story placement, headline writing, layout, and use of style books.
Offered every 3 years. 3 credits.

EN 271 Journalism Workshop

Prerequisite: EN 102

Provides lab sessions in all aspects of journalism for advanced writers; emphasis on publication.
Offered every 3 years. 3 credits.

EN/CM 272 News Reporting and Writing I

Prerequisites: EN 102 & EN 107

Includes fundamentals of news judgment, events coverage, sourcing, interviewing, writing on deadline, fact checking and basic editing.
Offered every year. 3 credits.

EN 275 Sportswriting

Prerequisite: EN 102

Introduces students to the journalistic art of sportswriting, reporting, and interviewing for various media.

Offered every year. 3 credits.

EN 281 Web Authoring and Publication

An introduction to web authoring and publication, with special emphasis on the conventions of digital discourse.
Offered every 2 years. 3 credits.

EN 300 History of the English Language

LASC—Thought, Language and Culture

Prerequisite: EN 102

A study of the origins of the English language from Old English through Middle English to the present.
Offered every year. 3 credits.

EN 302 Medieval Literature

The course exams genres in medieval literature, such as drama, poetry, debate, prose and riddles.
Offered every 3 years. 3 credits.

EN 303 Arthurian Literature

LASC—Thought, Language and Culture

This course traces the development of the Arthurian legends from their Celtic origins up through the modern period.
Offered every 3 years. 3 credits.

EN 304 Witchcraft in Medieval and Renaissance Literature

LASC—Thought, Language and Culture

Prerequisite: EN 102

This course explores how Medieval and Renaissance literature on witchcraft addressed contemporary concerns.
Offered every 3 years. 3 credits.

EN 306 The Renaissance

LASC—Thought, Language and Culture

Prerequisite: EN 102

The non-dramatic literature of Tudor England; emphasis on More, Wyatt, Sidney, Spenser, the earlier works of Shakespeare, Donne, and Bacon.
Offered every 3 years. 3 credits.

EN 308 Seventeenth-Century Literature

Prerequisite: EN 102

Prose and poetry of the era with special attention to the major works of Jonson and Donne.
Offered every 3 years. 3 credits.

EN 310 Eighteenth-Century Literature

Prerequisite: EN 102

The major figures of the Enlightenment with particular emphasis on satire: Dryden, Pope, Swift, Johnson, and Boswell.
Offered every 3 years. 3 credits.

EN 311 Young Adult Literature

Prerequisite: EN 102 or EN 250

Theoretical and critical approaches to classic and contemporary texts written for young adults aged pre-teen to late teen.
Offered every 3 years. 3 credits.

EN 312 The English Novel of the Eighteenth Century

Prerequisite: EN 102

Purpose, range, and developments in the novel of the eighteenth century: Defoe, Richardson, Fielding, Smollett, Sterne, and others.
Offered every 3 years. 3 credits.

EN 314 The English Novel of the Nineteenth Century

Prerequisite: EN 102

Representative nineteenth-century novelists: Austen, Bronte, Dickens, Thackeray, Eliot, Hardy, Conrad, and others.
Offered every 3 years. 3 credits.

EN 316 The Modern British Novel

Prerequisite: EN 102

Selected works of major British novelists from 1900 through World War II: Joyce, Lawrence, Woolf, Forster, and others.
Offered every 3 years. 3 credits.

EN 318 Romantic Literature

Prerequisite: EN 102

Poetry and prose with special emphasis on the poetry of Blake, Wordsworth, Coleridge, Shelley, Byron, and Keats.
Offered every 3 years. 3 credits.

EN 320 Victorian Literature

LASC—Thought, Language and Culture; Writing Across the Curriculum

Prerequisite: EN 102

Study of selected prose and poetry of the major writers of the Victorian period.
Offered every 3 years. 3 credits.

EN 321 Romantic and Victorian Gothic

LASC—Thought, Language and Culture

Prerequisite: EN 102

This genre gives students insight into the important writers, texts, and issues of the Romantic and Victorian eras.
Offered every 3 years. 3 credits.

EN 324 Continental Novelists I

Prerequisite: EN 102

European novelists of the nineteenth and twentieth centuries including Dostoyevsky, Mann, Camus, and others.
Offered every 3 years. 3 credits.

EN 330 Modern Drama

Prerequisite: EN 102

The theories and development of realism, naturalism, expressionism, folk drama; representative plays from Ibsen to O'Neill.
Offered every 3 years. 3 credits.

EN 332 Contemporary Drama

Prerequisite: EN 102

The dramatic works and aesthetics of Beckett, Pinter, and other selected dramatists of the contemporary theatre.
Offered every 3 years. 3 credits.

EN 334 Modern Poetry

Prerequisite: EN 102

Close analysis of the development of British and American poetry from the late nineteenth century to World War II.
Offered every 3 years. 3 credits.

EN 336 Contemporary Poetry

Prerequisite: EN 102

Concentrates on poets whose major work was written after World War II; special attention to authors presently writing and publishing.
Offered every 3 years. 3 credits.

EN 338 Contemporary Novel

Prerequisite: EN 102

American and English novels after World War II, with emphasis on living novelists.
Offered every 3 years. 3 credits.

EN 340 Twentieth-Century Literature

Prerequisite: EN 102

A survey of the major trends in twentieth-century poetry, drama, and fiction.
Offered every 3 years. 3 credits.

EN 341 Advanced Practices in Writing

Prerequisite: Permission of Instructor

Students gain advanced practices and skill in professional writing genres. Rotating topics and genres.
Offered every year. 3 credits.

EN 342 The American Novel I

Prerequisite: EN 102

The American novel from its origin to 1890; Brown, Cooper, Melville, Hawthorne, and others.
Offered every 2 years. 3 credits.

EN 344 The American Novel II

Prerequisite: EN 102

The American novelists from 1890 to World War II: Crane, Wolfe, Dreiser, Anderson, Hemingway, Steinbeck, and others.
Offered every 2 years. 3 credits.

EN 345 Women in American Literature

Prerequisite: EN 102

The American woman as she is portrayed in fiction, non-fiction, and poetry.
Offered every 3 years. 3 credits.

EN 346 History of Literary Criticism

Prerequisite: EN 102

An historical introduction to speculation concerning the nature and function of literature: selections from Plato to Frye.
Offered every 3 years. 3 credits.

EN 347 Studies in U.S. Ethnic Literature

LASC—U.S. and the World

Prerequisite: EN 102

Selected topics in U.S. ethnic literature, including thematic and comparative approaches, and in-depth studies of a single ethnic literature.
Offered every 3 years. 3 credits.

EN 348 Postcolonial Women's Writing

LASC—Global Perspectives

Prerequisite: EN 102

Writing by women from colonized and formerly colonized countries on local and global issues shaping women's lives and creative expression.
Offered every 3 years. 3 credits.

EN 350 Chaucer

Prerequisite: EN 102

A study of the development of Chaucer's versatile art and writings as expressive of the later Middle Ages.
Offered every 3 years. 3 credits.

EN/CM 351 News Reporting and Writing II

Prerequisite: EN 272

Focuses on using documentary evidence in reporting. Students select a reporting specialty area such as sports, business or higher education.
Offered every 2 years. 3 credits.

EN/CM 352 Practicum in Journalism

Prerequisite: EN 270 & EN 272

Workshop in which students report, write, and edit the online college news magazine. Participate in all aspects of publication.
Offered every semester. 3 credits.

EN/CM 353 Narrative Journalism

Prerequisite: EN 272

Students analyze and create in-depth journalistic features and nonfiction stories that blend reporting with techniques of fictional storytelling.
Offered every 2 years. 3 credits.

EN/CM 354 Opinion Writing

Prerequisite: EN 272

Students analyze and practice writing op-eds and other opinion pieces. Learn to write commentary that is publication ready.
Offered every 2 years. 3 credits.

EN 360 Shakespeare I

Prerequisite: EN 102

Major plays. Required of all English majors.
Offered every year. 3 credits.

EN 362 Shakespeare II

Prerequisite: EN 102

A continuation of EN 360; includes the sonnets and less familiar plays.
Offered every 2 years. 3 credits.

EN 364 Elizabethan and Jacobean Drama

Prerequisite: EN 102

Study of Shakespeare's contemporaries in the drama, among them Kyd, Marlowe, Jonson, Webster, Middleton, and Ford.
Offered every 3 years. 3 credits.

EN 380 Milton

Prerequisite: EN 102

A study of Milton's work from early poems to *Paradise Lost, Paradise Regained, and Samson Agonistes*; includes some prose pamphlets.
Offered every 3 years. 3 credits.

EN 390 The Irish Literary Revival

Prerequisite: EN 102

The Irish literary renaissance; the origins of the movement; includes Joyce, Yeats, Synge, O'Casey, Lady Gregory, and others.
Offered every 3 years. 3 credits.

EN 400 Seminar

Prerequisite: EN 102

Student presentations on individual figures and particular problems in literature.
Offered every year. 3 credits.

EN 410 Writing Practicum

Prerequisite: EN 102

Training and practice in one-to-one assistance for students' writing for any course, stage, or specific need.
Offered every year. 3-6 credits.

EN 411 Theory and Teaching of Writing

Study of current writing theory and classroom applications at the middle school, secondary and college levels.
Offered every 2 years. 3 credits.

EN 415 Technology and the Teaching of Writing

Prerequisite: EN 102 and Permission of Instructor

An introduction to the use of computer and internet technologies in the teaching of writing.
Offered every 3 years. 3 credits.

EN/CM 416 Media Law and Ethics

Prerequisite: EN 272

An overview of the U. S. legal and justice systems and an examination of ethical issues in mass media.
Offered every 2 years. 3 credits.

EN 425 Independent Study in English

Prerequisite: EN 102, Consent of instructor

An opportunity for further study in a special field of interest under faculty supervision.
Offered every year. 1-6 credits.

EN 426 Senior Seminar

LASC - Major Capstone

Course provides an option for seniors to fulfill their university capstone requirement in the discipline.

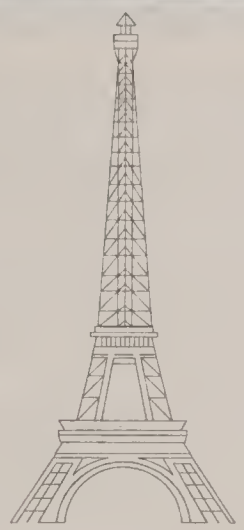
EN 450 Special Topics in English

Prerequisite: EN 102
Specific content will vary in response to particular student and faculty interests.
Offered every year. 3 credits.

EN 475 Internship in English

Prerequisite: EN 102, Consent of instructor

Provides majors the opportunity to gain practical experience in areas where they may apply acquired critical and writing skills.
Offered every year. 3-6 credits.



French
Department of World Languages

Faculty

Judith Jeon-Chapman, Professor (1993)
B.A. College of St. Benedict; M.A., Ph.D., University of Washington

Ana Pérez-Manrique, Associate Professor (2006), Department Chair
B.A. Universidad de Málaga, Spain; M.A., University of South Carolina;
Ph.D. Florida State University

Courses in French are designed for students whose interests and career plans have an international or multi-ethnic focus. Students who minor in French will develop listening, speaking, reading, and writing fluency and will study the culture, history and literature of the people who use the language.

Alpha Mu Gamma, a national honor society in foreign languages, recognizes excellence in the study of foreign languages. Any Worcester State University student who receives two "A's" in French at any level at Worcester State University and a 3.0 cumulative G.P.A. is eligible to join. Application for membership is in early February. Contact Professor Judith Jeon-Chapman.

Requirements for a Minor in French: 18 credits in French including:
FR 100-299, beginning and intermediate courses (12 credits maximum)
FR 300-499, advanced courses (6 credits minimum)
(Students with advanced knowledge of French should begin at 300-level)

Placement for French Courses: Students are encouraged to discuss placement with French Faculty or the World Languages Department Chair. The following are intended to be general placement guidelines to help students with previous experience with French:

0-2 years of French in high school:	FR 101 Beginning French I
1-2 years of French in high school:	FR 102 Beginning French II
3 years of French in high school:	FR 210 Intermediate French I
4 years of French in high school:	FR 211 Intermediate French II
5 or more years of French in high school:	300-level & 400-level courses
Native Speakers of French:	300-level & 400-level courses

Students may also take a placement exam in French at the Academic Success Center. It is recommended that the results of the test be discussed with the French Faculty or the World Languages Department Chair, especially if the test places the student below the level recommended above.

French Courses

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

FR 101 Beginning French I

LASC—Thought, Language and Culture

Fundamentals of pronunciation, patterns of speech, basic structures. Develops listening, speaking, reading and writing skills.
Offered every year. 3 credits.

FR 102 Beginning French II

LASC—Thought, Language and Culture

Prerequisite FR 101 or equivalent.
Offered every year. 3 credits.

FR 191 Special Topics in French

An introductory level course in French on current or specialized topics.
Offered every year. 3 credits.

FR 193 Special Topics in French for First-Year Students

All "193" courses are approved for LASC but may vary by section. See current course listing for specific LASC area approval.

An introductory level course covering topics of special interest to first-year students. Offered only as a First-Year Seminar.
Offered every year. 3 credits.

FR 210 Intermediate French I

LASC—Thought, Language and Culture; Global Perspective

Prerequisite: FR 102 or equivalent

Review of fundamentals and presentation of more complex grammatical features; development of conversational skills; selected readings, written and oral composition.
Offered every year. 3 credits.

FR 211 Intermediate French II

LASC—Thought, Language and Culture; Global Perspective

Prerequisite: FR 210 or equivalent

Continuation of FR 210.
Offered every year. 3 credits.

FR 321 Advanced French Composition I

LASC—Thought, Language and Culture; Writing Across the Curriculum

Prerequisite: Two FR 200 level courses or equivalent, EN 102

Practice in diverse composition styles as well as review of grammar, and introduction to reading French texts. Conducted in French.
Offered every 3 years. 3 credits.

FR 322 Advanced French Grammar

Prerequisite: Two FR 200 level courses or equivalent

Intensive review of grammar, practice in composition and introduction to reading French texts. Conducted in French.
Offered every 3 years. 3 credits.

FR 323 Advanced French Conversation

LASC—Thought, Language and Culture

Prerequisite: Two FR 200 level courses or equivalent

Development of fluency and accuracy, free discussions, prepared oral presentations, practical exercises in oral expression. Conducted in French.
Offered every 3 years. 3 credits.

FR 331 General French Civilization

LASC—Thought, Language and Culture

Prerequisite: Two FR 200 level courses or equivalent

Significant aspects of French history, geography, and cultural achievements to World War I. Conducted in French.
Offered every 3 years. 3 credits.

FR 341 Introduction to French Literature

LASC—Thought, Language and Culture; Global Perspective (GP); Diversity Across the Curriculum (DAC)

Prerequisite: Two FR 200 level courses or equivalent

Major periods and genres of French literature. Conducted in French.
Offered every 3 years. 3 credits.

FR 342 Survey of French Literature I

LASC—Thought, Language and Culture

Prerequisite: Two FR 200 level courses or equivalent

Selections from the epic, drama, lyric poetry, and the major prose writers to major authors of the classical period. Conducted in French.
Offered every 2 years. 3 credits.

FR 344 Survey of French Literature II

LASC—Thought, Language and Culture

Prerequisite: Two FR 200 level courses or equivalent

Major authors of the eighteenth and nineteenth centuries. Conducted in French.
Offered every 2 years. 3 credits.

FR 346 Twentieth Century French Literature

LASC—Global Perspectives; Thought, Language and Culture

Prerequisite: Two FR 200 level courses or equivalent

Major novelists, dramatists, and poets from the turn of the century to the present. Conducted in French.
Offered every 3 years. 3 credits.

FR 401 Seminar in French Studies

Prerequisite: For advanced students

Special topics in French language, literature or civilization.
Offered every 3 years. 3 credits.

FR 402 Independent Study in French

Prerequisite: Consent of instructor

Study of a special topic. Both content and eligibility subject to departmental guidelines and approval.
Offered every year. 1-6 credits.

FR 403 Teaching Assistantship in French

Prerequisite: FR 321 or instructor's approval. Suggested for advanced students of French.

Teaching Assistants in French will regularly attend the beginning or intermediate-level courses to which they are assigned to assist the professor.
Offered every year. 3 credits.

FR 475 Internship in French

Prerequisite: Consent of instructor and department.

Provides majors practical experience in areas where speaking, reading, and writing skills may be applied.
Offered every year. 3 credits.

Note: *Courses in other foreign languages such as German, Latin, Italian, Russian, Chinese and Hebrew are offered when demand warrants and staffing permits.*

History

Department of History and Political Science

Faculty

Joseph Preston Baratta, Professor (1999)
B.A., St. John's College; M.A., M.A.T., Ph.D., Boston University

Erika Briesacher, Assistant Professor (2012)
B.A., Illinois Wesleyan University; M.A., Southern Illinois University at Edwardsville; Ph.D., Kent State University

Bruce S. Cohen, Associate Professor (1965)
A.B., M.A., Rutgers University

Martin Fromm, Assistant Professor (2013)
B.A., Brown University; M.A., Stanford University; Ph.D., Columbia University

Aldo V. Garcia Guevara, Associate Professor (2006)
B.A., University of North Carolina-Asheville; M.A., Ph.D., University of Texas-Austin

Michael Gesin, Associate Professor (2007)
B.A., Worcester State College; M.A., Ph.D., Brandeis University

Charlotte Haller, Associate Professor (2004)
B.A., Brown University; M.A., Ph.D., University of Wisconsin

Tona J. Hangen, Associate Professor (2008)
B.S., Massachusetts Institute of Technology; Ph.D., Brandeis University

Peter Holloran, Associate Professor (1999)
A.B., Suffolk University; M.A., Ph.D., Boston University

Tanya Mears, Assistant Professor (2010)
B.S., Tuskegee University; M.A., Ph.D., University of Massachusetts Amherst

Frank S. Minasian, Associate Professor of Political Science (1968), Department Chair
A.B., Clark University; M.A.T., Assumption College

Najib E. Saliba, Professor (1971)
A.B., Miami University; M.A., Ph.D., University of Michigan

Robert W. Smith, Assistant Professor (2007)
B.A., Syracuse University; M.A., Ph.D., College of William and Mary

David J. Twiss, Associate Professor (1968)
B.S., M.Ed., Worcester State College; M.A., Assumption College

The purpose of the discipline is to provide students with extensive course offerings to enable them to cope with a complex and ever-shrinking world. The study of history and political science also provides students with a broad background for a wide variety of professional occupational opportunities. Within the History major are concentrations in Public History, and Foreign Service. The discipline also offers a minor in Pre-Law, a minor in Middle East Studies, and an honors seminar course taken at the American Antiquarian Society. Phi Alpha Theta, the national history honor society, is open to distinguished History majors.

Requirements for a Major in History: 42 credits including:

HI 103 & HI 104 & HI 105	World Civilization I & II & III
HI 111 & HI 112	US History I & II

US History electives: 6 credits
European History electives: 6 credits
Area Studies electives: 6 credits
One other elective in history, which can be from the "General" category (any history offerings excluding required survey courses HI- 103, 104, 105, 111 and 112): 3 credits
Two electives must be at the 300 or 400 level excluding required HI 411

Course in historical methods, to be taken during sophomore or junior year: 3 credits
HI 411 The Historian's Craft (Prerequisites: HI 103, 104, 111 and 112) or HI 440 Internship (with departmental approval)

For majors entering in curriculum year 2010 and later: Senior capstone experience, usually taken during Fall of senior year: 3 credits
HI 460 Senior Research Seminar in History, or HI 470 Senior Thesis in History.

* Exception for Double Majors in Early Childhood or Elementary Education. Only 36 History credits are required; a student may opt to omit the "One Other" elective and the capstone course. If not taking the capstone course, the senior capstone requirement must be fulfilled by submission of a non-credit History Learning Portfolio before or during the student-teaching semester. See department for Portfolio forms and submission guidelines.

Sample Timetable for Completion of Degree: History

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
LASC	First-Year Seminar	3
EN 101	English Composition I	3
HI 111	U.S. History I (CON)	3
HI 103	World Civilization I	3
MA	Math Foundation Course or (QR)	3
	Semester Subtotal	**15**

Semester Two		
Course No.	**Course Name**	**Credits**
LASC	Quantitative Reasoning (QR)	3
EN 102	English Composition II	3
HI 112	U.S. History II	3
HI 104	World Civilization II	3
SELECT	Elective or Minor Course	3
	Semester Subtotal	**15**

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
HI 105	World Civilization III	3
HI	1 of 2 U.S. History Electives	3
HI	1 of 2 European History Electives	3
LASC	U.S. and its Role in the World (USW)	4
SELECT	General Elective or Minor course	3
	Semester Subtotal	**16**

Semester Four		
Course No.	**Course Name**	**Credits**
HI	1 of 2 Area Studies History Electives	3
HI	2 of 2 U.S. History Electives (300/400 level)	3
HI 411	The Historian's Craft	3
LASC	Natural Systems and Process (NSP)	3
LASC	General Elective or Minor course	3
	Semester Subtotal	**15**
Comments		

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
HI	2 of 2 European History Electives (300/400 level)	3
HI	2 of 2 Area Studies History Electives	3
SELECT	General Elective or Minor course	3
SELECT	General Elective or Minor course	3
LASC	Individual and Community Well-Being (ICW)	3
	Semester Subtotal	**15**

Semester Six		
Course No.	**Course Name**	**Credits**
LASC	Natural Systems and Process (NSP)	4
HI	Elective in Major	3
LASC	Human Behavior and Social Processes (HBS)	3
LASC	Global Perspectives (GP)	3
SELECT	General Elective or Minor course	3
	Semester Subtotal	**16**
Comments		

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
HI Capstone	Either HI 460 or 470 Fall or Spring or complete sem. 8 (WAC) (CAP)	3
Select	General Elective or Minor course	3
LASC	Creative Arts (CA)	3
SELECT	General Elective or Minor course	3
SELECT	General Elective or Minor course	3
	Semester Subtotal	**15**

Semester Eight		
Course No.	**Course Name**	**Credits**
HI Capstone	HI 460 or 470 if not completed in Fall then General Elective or Minor (WAC) (CAP)	3
SELECT	General Elective or Minor course	3
LASC	Thought, Language & Culture (TLC)	3
SELECT	General Elective or Minor course	3
SELECT	General Elective or Minor course	3
	Semester Subtotal	**15**
Comments		

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

Requirements for a Minor in History: 24 credits

HI 103 & HI 104 & HI 105	World Civilization I and II and III
HI 111 & HI 112	US History I and II
HI 411	The Historian's Craft

History electives: 6 credits

Requirements for a Minor in Middle East Studies: 18 credits

HI 261	Middle East History I
HI 314	Twentieth Century Middle East History
AB 101	Arabic I
AB 102	Arabic II

6 credits recommended by advisor

Requirements for a Minor in Pre-Law: 22 credits

PO 102	Constitutions: US and Massachusetts
PO 103	Fundamentals of Legal Research

2 of these 3 courses:

HI/PO 218	US Constitutional History I
HI/PO 219	US Constitutional History II
HI 241	English Constitutional History

Seminar in Constitutional History HI 420, 421, 422 or as an HI 400 Independent Study

9 credits from selected listing or substituted with advisor's permission

Requirements for a Major in History, Concentration in Public History: Juniors and seniors have the opportunity for independent study and off-campus internships. Students may receive academic credit for internships in history museums, historic restorations, historic libraries, archives, or in any one of a great variety of agencies in state, county, and local government. Internship/ independent study credit may be given for internships in private sector agencies which have a public interest. Public history concentrators will be able to complete the requirements for the history major and the political science minor.

Requirements for a Major in History, Concentration in Foreign Service: Programs are individually planned with the student's advisor and prepare individuals for careers in the State Department and the intelligence community. In addition to required courses, students will be encouraged to elect courses in the areas of economics, languages, management, geography, and related fields.

History Courses (Undergraduate)

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

HI 103 World Civilization I

LASC—Global Perspectives; Thought, Language and Culture

Surveys economic, social, political, and intellectual development of world civilizations and their inter-relationship from ancient times to 1500

Offered every year. 3 credits.

HI 104 World Civilization II

LASC—Global Perspectives; Thought, Language and Culture

Surveys economic, social, political, and intellectual development of world civilizations and their inter-relationship from 1500 to 1914

Offered every year. 3 credits.

HI 105 World Civilization III

LASC—Global Perspectives; Thought, Language and Culture

Surveys economic, social, political, and intellectual development of world civilizations and their inter-relationship from 1914 to the present.

Offered every year. 3 credits

HI 111 US History I

LASC—Constitutions; United States and Its Role in the World

From colonization through the Civil War era. A study of politics, society, economy, diplomacy, and culture in that period.
Offered every year. 3 credits.

HI 112 US History II

LASC—Constitutions; United States and Its Role in the World

From the Civil War era to the present. Topics include politics, society, economy, and culture in modern America.
Offered every year. 3 credits.

HI 193 Special Topics in History for First-Year Students

All "193" courses are approved for LASC but may vary by section. See current course listing for specific LASC area approval.

Introductory level course covering topics of special interest to first-year students. Offered only as a First-Year Seminar.
Offered every year. 3 credits.

HI/PO 201 International Relations I

LASC—Global Perspectives; United States and Its Role in the World; Writing Across the Curriculum

Prerequisite: PO 101 or HI 103 or HI 104, EN 101, EN 102 or EN 250

Theory and practice of international security (realism and internationalism) and international political economy (liberalism and protectionism) in their historical context.
Offered every year. 3 credits.

HI/PO 202 International Relations II: Globalization

LASC—Global Perspectives; United States and Its Role in the World; Writing Across the Curriculum

Prerequisite: PO 101 or HI 103 or HI 104, EN 101, EN 102 or EN 250

The promise and problems of globalization (spread of free market capitalism and political democracy).
Offered every year. 3 credits.

HI 203 The United States Since 1945

LASC—United States and Its Role in the World; Diversity Across the Curriculum; Writing Across the Curriculum
Prerequisite: EN 102 or EN 250

Explains the history and culture of the United States since 1945.
Offered every other year. 3 credits

HI 204 History of Science and Technology

LASC—Global Perspectives; Thought, Language and Culture; Writing Across the Curriculum

Prerequisite: EN 101, EN 102 or EN 250

Progress of science from the Enlightenment, including applied science or technology from the 19th century. Complements History of Mathematics.
Offered every year. 3 credits.

HI 205 Native America

This survey covers the broad sweep of Native American history and focuses on the encounter between American and European civilizations and how Native culture has adapted through the centuries.
Offered every 2 years. 3 credits.

HI 206 A History of Warfare

An examination of the role of war in conflict resolution, great battles which changed history, and the impact of technology on war.
Offered every 2 years. 3 credits.

HI 207 American West: Myth and Reality

The historic development of the West, its impact on the American character, and a study of how myths become accepted "fact."
Offered every 2 years. 3 credits.

HI 208 American Immigrant History

Survey of immigration. Topics such as old-world background, impact on US, nativism, cultural pluralism, religion, mobility, family and politics.
Offered every year. 3 credits.

HI/PO 211 History of US Foreign Policy I

LASC—United States and Its Role in the World

Prerequisite: HI 111 or HI 112

Colonial origins to the era of the Spanish American War. The sources and development of US foreign policy in that period.
Offered every year. 3 credits.

HI/PO 212 History of US Foreign Policy II

LASC—United States and Its Role in the World

Prerequisite: HI 111 or HI 112

From 1900 to recent times: US foreign policy traditions and the challenges of great power status.
Offered every year. 3 credits.

HI 213 Colonial Latin America

The people of Latin America from Pre-Columbian societies to the wars for independence, focusing on race, sex and power.
Offered every other year. 3 credits.

HI 214 Modern Latin America

LASC—Thought, Language and Culture; Global Perspectives; Diversity Across the Curriculum

The people of Latin America from independence to the present, focusing on race, sex and power.
Offered every other year. 3 credits.

HI 215 History of American Thought

LASC—Thought Language and Culture; United States and Its Role in the World; Diversity Across the Curriculum; Writing Across the Curriculum
Prerequisites: HI 111 or HI 112, EN 101, EN 102, or EN 250

Explores the history of ideas in the United States, including major intellectual movements, thinkers, and texts. Cross-listed with Women's Studies.
Offered every 3 years. 3 credits.

HI 216 Economic History of the US

An introduction to United States economic development; particular attention will be paid to industrialization and the labor force.
Offered every year. 3 credits.

HI 217 US Social History

LASC—Thought Language and Culture; United States and Its Role in the World; Diversity Across the Curriculum; Writing Across the Curriculum
Prerequisites: EN 101, EN 102, or EN 250

Survey of social and cultural history. Topics such as family, religion, education, popular literature, architecture, transportation and reform.
Offered every 2 years. 3 credits.

HI/PO 218 US Constitutional History I

LASC— Constitutions ; Human Behavior and Social Processes; United States and Its Role in the World

The development of American constitutional history to 1865.

Offered every 2 years. 3 credits.

HI/PO 219 US Constitutional History II

LASC— Constitutions ; Human Behavior and Social Processes; United States and Its Role in the World

The development of the U.S. Constitution since 1865.
Offered every 2 years. 3 credits.

HI 221 African-American History I

The people of African descent from the emergence of the slave trade to the Civil War, focusing on race, gender, and power.
Offered every year. 3 credits.

HI 222 African-American History II

The people of African descent from the end of the Civil War through the twentieth century, focusing on race, gender, and power.
Offered every year. 3 credits.

HI 223 History of France I

Prerequisite: HI 103 and HI 104
Social, cultural, and military developments of France during the Middle Ages and the Capetian, Valois, and Bourbon periods to 1750.
Offered every two years. 3 credits

HI 224 English History I

LASC—Thought Language and Culture; Writing Across the Curriculum
Prerequisite: HI 103 or HI 104, EN 101, EN 102 or EN 250
English history from earliest settlement to the reign of Elizabeth I. Origins of the Common Law, Parliament, and English liberty.
Offered every other year. 3 credits.

HI 225 English History II

LASC— Thought, Language and Culture; Writing Across the Curriculum

Prerequisite: HI 224, EN 101, EN 102 or EN 250

English history through the English Revolution, the Industrial Revolution, the British Empire, the World Wars, and decline.
Offered every other year. 3 credits.

HI 226 Latin American History through Film

This course will explore how filmmakers have portrayed Latin American History in their movies.
Offered every 3 years. 3 credits.

HI 230 Nicaragua, the US and the World

LASC—United States and Its Role in the World; Diversity Across the Curriculum; Thought, Language and Culture

The course will examine the impact of globalization and imperialism on the lives of Nicaraguans at home and in their diasporic communities.
Offered every year. 3 credits.

HI 231 European Intellectual History I

Prerequisite: HI 103 or HI 104

The main theoretical works, philosophic, psychological and scientific, from Plato to the eighteenth century.
Offered every 3 years. 3 credits.

HI 232 European Intellectual History II

Prerequisite: HI 103 or HI 104

The main theoretical works, philosophic, psychological and scientific, of the nineteenth and twentieth centuries.
Offered every 3 years. 3 credits.

HI 234/HI 235 Russian History I and II

A study of major political, economic, social, intellectual, and diplomatic currents in Russia, from the Kievan era to Stalin.
Offered every 2 years. 3 credits each.

HI 236/HI 237 Modern Far East History I and II

Civilizations dramatically different from our own, focusing upon China, Japan, and Southeast Asia since 1600.
Offered every year. 3 credits each.

HI 240 History of American Popular Culture

This course is an introduction and survey of the multidisciplinary field of American Popular Culture, analyzing popular or non-elite culture in the United States from the colonial era to present.
Offered every year. 3 credits.

HI/PO 241 English Constitutional History

LASC—Global Perspectives; Human Behavior and Social Processes
Development of English Constitution from Magna Carta through revolution, supremacy of Parliament, reform acts, entry into European Union, and devolution.
Offered every 2 years. 3 credits.

HI 242 History of Early Modern Europe

Forces that shaped Europe since the Reformation: the political, economic, and intellectual context of the external expansion as well as the internal turmoils, such as the Thirty Years War and the European economy to 1789.
Offered every 3 years. 3 credits.

HI 243 Introduction to Public History

Introduction to the field, theory, and practice of Public History and associated institutions such as museums, archives, and historical sites.
Offered every 2 years.

HI 244 American Urban History

The process of accelerating urbanization in America since the nineteenth century: cultural, social, economic and political aspects of urban life.
Offered every 3 years. 3 credits.

HI 245 History of Modern Germany I

The origins and growth of Brandenburg-Prussia; their impact on the rest of Germany from the foundation of the Holy Roman Empire to the emergence of the Second Reich in 1871.
Offered every 3 years. 3 credits.

HI 246 History of Modern Germany II

German economic and political crises from 1870 to the present.
Offered every 3 years. 3 credits.

HI 247 Central America and the Caribbean

This survey examines the political, cultural and social history of Central America and the Caribbean from pre-Columbian times to the present with an emphasis on the 20th century.
Offered every 3 years. 3 credits.

HI 248 Seminar on Globalization and Human Rights

LASC—United States and Its Role in the World, Global Perspectives, Diversity Across the Curriculum (DAC)
A.I.D. program participants in their sophomore year will explore globalization and human rights and issues of personal growth and academic development.
Offered every three years. 3 credits

HI 249 US Labor History I

The relationship between workers, their employers, and the surrounding community between 1815 and World War II.
Offered every 2 years. 3 credits.

HI 250 Special Topics in History

Special topics at the introductory or intermediate level; especially appropriate for first-and second-year student.
Offered variously.

HI 257 Political Terrorism in Historical Perspective

A comparative approach to the terrorist movements of the nineteenth and twentieth centuries, concentrating on the European groups.
Offered every 2 years. 3 credits.

HI 258 Russia Since the Stalin Era

An analysis of the major political, economic and diplomatic developments in the (former) Soviet Union since the death of Stalin; the formation of the Commonwealth of Independent States.
Offered every 2 years. 3 credits.

HI 260 Egypt Since 1798

A discussion of Napoleon's occupation of Egypt, the rise of Muhammad 'Ali, Suez Canal, British Occupation, Egyptian Nationalism, Nasser's Revolution.
Offered every 3 years. 3 credits.

HI 261 Middle East History I

LASC—Global Perspectives; Thought, Language and Culture

The rise and expansion of Islam: the Caliphate, Muslim religion, civilization, and its impact on the West, decline of medieval Islam.
Offered every 2 years. 3 credits.

HI 262 Middle East History II: The Ottoman Empire, 1289-1920

LASC—Global Perspectives; Thought, Language and Culture; Writing Across the Curriculum

Prerequisite: EN 102, EN 102, or EN 250

The Ottoman Empire: expansion, institutions, impact on Europe, decline of the Empire.
Offered every 2 years. 3 credits.

HI 263 US – Middle East Relations

LASC—Global Perspectives; United States and Its Role in the World
Prerequisite: HI 103 or HI 104 or HI 111 or HI 112
Course will discuss the influence the Middle East has had on US policy since US independence to the present.
Offered every 2 years. 3 credits.

HI 264 American Constitutional Law

American Constitutional Law; civil liberties, rights of criminal defendants, Federal-state relations, interpreting the Constitutions.
Offered every 2 years. 3 credits.

HI 267 US – Latin American Relations

LASC—United States and Its Role in the World; Diversity Across the Curriculum; Writing Across the Curriculum
Prerequisite: EN 101, EN 102, or EN 250
Will analyze the political, economic, social, and cultural impact of the interactions between and among the governments and people of the US and Latin America.
Offered every year. 3 credits.

HI 270 History of Modern Italy

Study of modern Italy from 1789 to the present.
Offered every three years. 3 credits.

HI 271 Women and Work in Historical Perspective

Prerequisite: HI 103 or HI 104 or HI 111 or HI 112

This course undertakes to examine women's work conditions and the opposition to its continuation in Europe and America, 16th–19th centuries.
Offered every 2 years. 3 credits.

HI 273 Ideas of Men and Women in Historical Perspective

Prerequisite: HI 103 or HI 104 or HI 111 or HI 112

This survey course focuses on ideas about the sexes which have predominated in the West.
Offered every 2 years. 3 credits.

HI 274 Sex, Marriage and the Family in Historical Perspective

LASC—Thought, Language and Culture; Diversity Across the Curriculum

Social, cultural, and diplomatic developments in France from 1750 to the present.
Offered every 2 years. 3 credits.

HI 281 History of France II

Prerequisite: HI 103, HI 104
Social, cultural, and diplomatic developments in France from 1750 to present.
Offered every 2 years. 3 credits.

HI 285 History of Baseball

LASC—Thought, Language and Culture; United States and Its Role in the World; Diversity Across the Curriculum

History of baseball from the first bat-and-ball games to the present.
Offered every 3 years. 3 credits.

HI 290 Health and Healing in America

LASC—Individual and Community Well-Being; Thought, Language and Culture; Writing Across the Curriculum

Prerequisite: EN 101, EN 102 or EN 250

Explores topics in the history of medicine, health, disease, and healing in US history.
Offered every 2 years. 3 credits.

HI 300 The Early National Period of the US: 1783-1829

LASC—United States and Its Role in the World; Thought, Language and Culture

Prerequisite: HI 111

The Confederation, Constitution, the emergence of political parties, and the rise of American nationality.
Offered every 3 years. 3 credits.

HI 302 Medieval History

Prerequisite: HI 103

Cultural, social, and diplomatic European history of the Middle Ages from fall of the Roman Empire until the rise of the Renaissance.

Offered every 3 years. 3 credits.

HI 303 Colonial History I

Prerequisites: HI 111, HI 112

European background and reasons for American colonization, intercolonial rivalries, formation of the 17th century English colonies. British colonial policy to 1689.

Offered every 2 years. 3 credits.

HI 305 Ancient History

Prerequisite: HI 103

The history, culture, and politics of ancient Greece and Rome.

Offered every 2 years. 3 credits.

HI 306 Renaissance and Reformation

Prerequisite: HI 103

Intellectual and cultural history of Europe from the middle of the thirteenth to the middle of the sixteenth century.

Offered every 3 years. 3 credits.

HI 308 Europe in the Age of Revolution and Nationalism: 1789-1870

Prerequisite: HI 103 or HI 104

The French Revolution, Napoleon, Congress of Vienna; nationalism, liberalism, socialism; Second French Empire; German and Italian unification.

Offered every 2 years. 3 credits.

HI 310 Massachusetts History

Prerequisites: HI 111 or HI 112

A survey of Massachusetts history from its colonial origins to the present era, including the social, economic, political, constitutional development of state history and culture.

Offered every year. 3 credits.

HI 312 Twentieth Century Europe I

Prerequisites: HI 103 or HI 104

The politics and economics of WW I; the pattern of restlessness between the wars in the rise of dictatorship in Germany, Italy, and Spain; the regimentation of economic control.

Offered every 2 years. 3 credits.

HI 313 Twentieth Century Europe II

Prerequisites: HI 103 or HI 104

Politics and diplomacy of World War II; the dynamics of the rebirth of Europe since VE Day. The effects of total war upon Europe.

Offered every 2 years. 3 credits.

HI 314 Twentieth Century Middle East History

LASC—Global Perspectives; Thought, Language and Culture; Diversity Across the Curriculum

Prerequisite: HI 103 or HI 104 or HI 105 or HI 111 or HI 112 or HI 261

The Young Turk Revolution, division of Ottoman Empire in World War I; rise of new states; the Arab-Israeli conflict.

Offered every 2 years. 3 credits.

HI 316 American-Russian Relations 1781 - Present

Prerequisite: HI 104 or HI 105 or HI 111 or HI 112

An analysis of American-Russian relations from their inception to the present, stressing the period since 1917.

Offered every 2 years. 3 credits.

HI 317 The US and East Asia

Prerequisite: HI 104 or HI 105 or HI 111 or HI 112

An examination of the American role in East Asia, focusing upon American-Chinese relations, American-Japanese relations, and the Indo-China conflict.

Offered every 3 years. 3 credits.

HI 319 Material Culture

Focuses on the way scholars use and analyze objects in historical, social and cultural content.
Offered every 2 years.

HI/PO 320 Citizen Nation

LASC—Constitutions; Thought, Language and Culture; United States and Its Role in the World; Diversity Across the Curriculum; Writing Across the Curriculum

Prerequisites: HI 111 or HI 112, EN 101, EN 102 or EN 250

Explores the history and meaning of citizenship in the United States, including discrimination, rights struggles and changing citizenship criteria.
Offered every 3 years. 3 credits.

HI 321 Museums and Society

Course on the history of museums and their development as a major space for public history and memory.
Offered every 2 years.

HI/PO 322 Nationalism

Examines the theories of nationalism, the development of the modern nation-state, and its effect on global politics.
Offered every 3 years.

HI/PO 323 Empire

Prerequisite: Hi 103 and HI 104

Theories and models of colonization, the reaction of colonized peoples, and the way historians analyze imperialism from 1400 to 1920's.
Offered every three years. 3 credits.

HI/PO 330 Politics of the Middle East I

Prerequisite: HI 104 or HI 105 or HI 111 or HI 112 or PO 101 or HI 261 or HI 314

Discusses governments and politics of eastern Arab countries, Turkey, Iran, and Israel. International rivalries in the area are also discussed.
Offered every year. 3 credits.

HI 333 Women in Latin America

Examines the roles of women in diverse societies including Mexico, Brazil and Caribbean nations. Emphasis on the modern period.
Offered every 3 years. 3 credits.

HI 345 Religions in America

LASC—Thought, Language and Culture; United States and Its Role in the World; Diversity Across the Curriculum; Writing Across the Curriculum

Prerequisites: HI 111, HI 112, EN 101, EN 102 or EN 250

Considers topics in American religious history and explores religious diversity in the past and in contemporary United States.
Offered every 3 years. 3 credits.

HI 349 America on Film

Prerequisite: HI 111 or HI 112

This course examines the origins and nature of the U.S. film industry and how it uses and abuses history from 1893 to the present.
Offered every 2 years. 3 credits.

HI 350 Native American Women

Prerequisite: HI 205 or equivalent

Examines Indian women from the time of European contact to the modern era. Emphasizes culture, community and arenas of power.
Offered every 3 years. 3 credits.

HI 351 Age of Jackson

LASC—United States and Its Role in the World; Thought, Language and Culture

Prerequisites: HI 111 or HI 112

Political, social, economic, and intellectual developments in the second quarter of the nineteenth century.
Offered every 3 years. 3 credits.

HI 352 Civil War and Reconstruction

Prerequisite: HI 111

Sectionalism, slavery, and modern industrial warfare as well as their impact on the political and racial fabric of America.
Offered every 2 years. 3 credits.

HI 353 The Age of Reform: 1877-1920

Prerequisites: HI 111, HI 112

An analysis of the transformation of America, including reform response to the Gilded Age's industrialization, urbanization, and immigration patterns.
Offered every 2 years. 3 credits.

HI 356 The History of the Cold War

LASC—United States and Its Role in the World

Prerequisites: HI 104 or HI 105 or HI 112

The origins of the Cold War, American, Soviet and Chinese foreign policies, arms control negotiations and future prospects.
Offered every 3 years. 3 credits.

HI 366 American Revolutionary Period

LASC—Thought, Language and Culture; United States and Its Role in the World

Prerequisites: Consent of instructor

Basic problems between English colonies and mother country, military aspects of the American Revolution, Confederation Period, making of the Constitution.
Offered every 2 years. 3 credits.

HI/PO 380 American Foreign Policy Since the Cold War

LASC—Human Behavior and Social Processes; United States and Its Role in the World Prerequisite: PO 101 or HI 112 or HI 212

Instruments of American foreign policy; major foreign policy developments since 1989.
Offered every 2 years. 3 credits.

HI 381 The First World War

The origins, course, and consequences of the First World War.
Offered every three years. 3 credits.

HI 400 Independent Study in History

Prerequisite: Consent of instructor

Special topics for advanced research and study under the guidance of a faculty member.
Offered every year. 1-3 credits.

HI 411 The Historian's Craft

Prerequisites: HI 103, HI 104, HI 111, HI 112

A methods course providing hands-on exploration of American history as both a professional field and a scholarly discipline.
Offered every year. 3 credits.

HI 420 Seminar in American Constitutional History

Prerequisite: Consent of instructor

Reading, research and discussion on a specially selected phase of American constitutional development; an original paper of significant scholarship is required.
Offered every 3 years. 3 credits.

HI 421 Seminar in English Constitutional History

Reading, research and discussion on a phase of English constitutional development; an original paper of significant scholarship is required.
Offered every 3 years. 3 credits.

HI 422 Seminar in Ancient Constitutional History

Prerequisite: Consent of instructor

Reading, research and discussion on a phase of ancient constitutional development; an original paper of significant scholarship is required.
Offered every 3 years. 3 credits.

HI 430 European History and Historians

Prerequisite: Consent of instructor

The study of Europe's major schools of historical thought with emphasis on how Europe's history has been written.
Offered every 3 years. 3 credits.

HI 435 Issues in Modern Middle East

Prerequisite: HI 261 or HI 314 or HI 330

Emphasizes reading, research and writing. Students will choose issues, research them, make a class presentation, then develop the presentation into a paper.
Offered every 3 years. 3 credits.

HI/PO 440 Internship in American Studies

Prerequisite: Consent of instructor

Internships in museums, archives, government agencies, etc. Performing a variety of tasks at beginning professional level in cooperating institutions.
Offered every year. 3-6 credits.

HI 450 Advanced Special Topics in History

Advanced special topics in history, course may be taught as an upper level seminar.
Offered variously.

HI 460 Senior Research Seminar in History

LASC - Major Capstone

Prerequisite: Successful completion of HI 411, and EN 102 or EN 250

Capstone research, writing and portfolio seminar for seniors in the history major; students produce a substantive original research paper.
Offered every year. 3 credits.

HI 470 Senior Thesis in History

LASC - Major Capstone

Prerequisite: Successful completion of HI 411, and EN 102 or EN 250

History major capstone option for students who intend to write senior thesis in history.
Offered every year. 3 credits.

Music
Department of Visual and Performing Arts

Faculty

Kyle D. Martin, Professor (1998)
B.M., Hardin-Simmons University; M.M., D.M.A., Eastman School of Music

Christie B. Nigro, Professor (1989)
B.M., Syracuse University; M.M., Yale University; Ph.D., University of Massachusetts

Robert K. Sahagian, Professor (1968)
B.M., New England Conservatory of Music; M.M., Ph.D., Michigan State University

Adam Zahler, Associate Professor (2007), Department Chair
B.A., University of Vermont; M.F.A., University of Virginia

The music faculty offers courses in the performance, history, the theory of music and applied music. Students are provided with opportunities to perform in ensembles as well as take a wide variety of classroom courses to enhance musical understanding and literacy.

Requirements for a Major
The newly instituted Interdisciplinary Visual and Performing Arts Major offers concentrations in Art, Music, or Theatre. *See Visual and Performing Arts Department.*

Requirements for a Minor in Music: 18 credits in music of which 3 credits are required in each of the following: Music Theory (MU 100 Music Fundamentals or MU 101 Fundamental of Music and Aural Skills or MU 205 Harmony I), Music History (MU 115 Music Appreciation or historical period courses), and Applied Studies (private lessons or ensembles).

Music Courses

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

MU 100 Music Fundamentals

LASC—Creative Arts

An introduction to the rudiments of music theory, including pitch and rhythmic organization. Emphasis is placed on intervals, major and minor scales, reading and writing rhythm, and chord structures.
Offered every year. 3 credits.

MU 101 Fundamentals of Music and Aural Skills

LASC—Creative Arts

An introduction to reading and writing conventional music notation, the fundamentals of music theory, and basic aural skills. Emphasis will be placed on intervals, scales, chords, rhythmic values, sight-singing, melodic dictation, and aural recognition of intervals and chords.
Offered every year. 3 credits

MU 102 Applied Music

Prerequisite: Audition required

Instruments offered: Piano, voice, clarinet, flute, saxophone, trumpet, trombone, French horn, violin, cello, percussion, classical guitar, organ. Instructors for other instruments may be arranged by special request to Music Department. Private instruction in an instrument or voice, one-half hour lesson per week. Studio fee required. May be repeated.
Offered every year. 1 credit.

MU 115 Music Appreciation

LASC—Creative Arts

A general survey of masterpieces of the major composers of various periods in the history of music.
Offered every year. 3 credits.

MU 125 Jazz Appreciation

LASC—Creative Arts, Thought, Language and Culture

Surveys the history of jazz, beginning with the earliest roots in the American South to today.
Offered every year. 3 credits.

MU 140 World Music

LASC—Creative Arts

An introduction to music of various cultures and continents including music of Africa, Asia, Latin America, The Middle East and India.
Offered every year. 3 credits.

MU 150 Opera

Analysis of the masterworks of the standard operatic repertoire.
Offered every year. 3 credits.

MU 175 Music in America

A survey of music history and literature in America including gospel spirituals, jazz, popular and classical music.
Offered every 3 years. 3 credits.

MU 190 Class Piano

LASC—Creative Arts

Prerequisite: MU 100 or MU 101

Basic piano proficiency. Class topics will include an introduction to the keyboard, hand position, and music theory. Solo literature appropriate to the level will be studied.
Offered every year: 1 credit

MU 193 Special Topics in Music for First-Year Students

All "193" courses are approved for LASC but may vary by section. See current course listing for specific LASC area approval.

Introductory level course covering topics of special interest to first-year students. Offered only as a First-Year Seminar.
Offered every year. 3 credits.

MU 195 Class Guitar

An introduction to playing the guitar, including technique, reading tabs and notation, and harmonization of melodies with chords. Solo literature appropriate to the level will be studied. Students are required to provide an instrument.
Offered every year: 1 credit

MU 200 Issues in Music

This course deals with topics of special interest, in both seminars and applied environments at an introductory level.
Offered every other year. 3 credits.

MU 202 Applied Music

Prerequisite: Audition required

Note: Please refer to instrument listing for MU 102
Private instruction in an instrument or voice, one-half hour lesson per week. Studio fee required. May be repeated.
Offered every year. 1 credit.

MU 204 Composition

LASC—Creative Arts

Prerequisite: MU 100 or MU 101

An introduction to compositional methods and techniques. Students develop personal expression by creating musical works while exploring use of melody, harmony, timbre, rhythm, texture, and tonality within conventional musical forms.
Offered every other year. 3 credit.

MU 205 Harmony I

LASC—Creative Arts

Prerequisite: MU 100

Analysis and application of harmonization techniques using diatonic chords. Further emphasis is placed on voice-leading, figured bass, melodic construction, and embellishing tones.
Offered every year. 3 credits.

MU 210 Harmony II

LASC—Creative Arts

Prerequisite: MU 205

Analysis and application of harmonization techniques using diatonic and chromatic chords. Emphasis is placed on voice-leading, non-chord tones, secondary chords, and modulation.
Offered every year. 3 credits.

MU 213 Music Technology of MIDI Systems and Digital Audio

Prerequisite: MU 100 or knowledge of notation and department consent

Offers study in MIDI/Digital Audio Systems and electronic music synthesis in a PC environment. Prepares student interested in audio engineering.
Offered every year. 3 credits.

MU 215 Chorus and Music Theory

LASC—Creative Arts

Prerequisite: Audition required

Mixed choral repertoire and performance, covering vocal problems and techniques. Introduction to music theory, rhythms, intervals, basic chordal structures, harmonization. Participation in college chorus required.
Offered every year. 3 credits.

MU 220 Chorus

LASC—Creative Arts

Prerequisite: MU 215

Mixed chorus repertoire. May be repeated.
Offered every semester. 1 credit.

MU 222 African Drumming

An exploration of African music and drumming techniques from the culture of Ghana. Students will develop performance skills and present a public performance during the course of the semester.
Offered every year. 3 credits.

MU 225 Band

LASC—Creative Arts

Prerequisite: Audition required

Study and experience in repertoire and performance. May be repeated.
Offered every year. 1 credit.

MU 226 Band and Music Theory

LASC—Creative Arts

Prerequisite: Audition required

Study and experience in music notation and style of instrumental music. Participation in college band required.
Offered every year. 3 credits.

MU 230 New England Jazz Artists

To enhance the student's knowledge of jazz by studying and analyzing the music of the great jazz artists and venues of the New England area.
Offered every year. 3 credits.

MU 231 Women in Music

LASC—Creative Arts; Thought, Language and Culture

A survey of the role of women in music, particularly the great women composers from Medieval to Contemporary times.
Category1. 3 credits.

MU 234 Music of the Baroque Period

The period 1600-1750 with emphasis on Bach and Handel.
Offered every 3 years. 3 credits.

MU 235 Music of the Classical Period

The period 1750-1827; Haydn, Mozart and Beethoven.
Offered every 3 years. 3 credits.

MU 237 Music in the Elementary School

LASC—Creative Arts

Discover the benefits of using music to enrich general education from preschool through high school. Develop your own musicianship through learning to use your singing voice, learning to play the recorder, learning to read notation and gaining an overview of western music history.
Offered every year. 3 credits.

MU 240 Music of the Romantic Period

A survey of nineteenth-century music beginning with Beethoven.
Offered every 2 years. 3 credits.

MU 245 Twentieth-Century Music

A comprehensive study and general listener's approach to contemporary music beginning with Impressionism.
Offered every 2 years. 3 credits.

MU/CM 250 Music of the Cinema: Spectacle, Splendor, and Spielberg

LASC—Creative Arts; Thoughts, Language and Culture

An introduction to the role, impact, and importance of music in motion pictures from silent movies through contemporary film.
Offered every 2 years. 3 credits.

MU 255 The Golden Era of Piano Music

LASC—Creative Arts

A survey of piano music beginning with Beethoven and continuing through the Romantic tradition to the early twentieth century.
Offered every year. 3 credits.

MU 260 Symphonic Music

LASC—Creative Arts

A survey of symphonic music beginning with the classical period.
Offered every year. 3 credits.

MU 265 The Concerto

LASC—Creative Arts

The concerto from the eighteenth to the twentieth century with emphasis on the development of the piano concerto.
Offered every 2 years. 3 credits.

MU 270 Music in Horror Films

A survey of scores composed for horror films. Emphasis is placed on the role of music in the genre and the composer's interpretation of various components of screenplays, including narrative, characters, and emotional content.
Offered every other year. 3 credits.

MU 281 Music History I

LASC—Creative Arts

A general survey of western art music from the Medieval, Renaissance, and Baroque periods.
Offered every year. 3 credits.

MU 282 Music History II

LASC—Creative Arts

A general survey of western art music from the Classical and Romantic periods, and the twentieth century.
Offered every year. 3 credits.

MU 300 Chorale

LASC—Creative Arts

Prerequisites: By audition only

Study and performance of a cappella choral literature from the Middle Ages to contemporary times. May be repeated.
Category 1. 1 credit.

MU 302 Applied Music

Prerequisite: Audition required

Note: Please refer to instrument listing for MU 102
Private instruction in an instrument or voice, one-half hour lesson per week. Studio fee required. May be repeated.
Offered every year. 1 credit.

MU 310 The American Musical in Performance

Study, rehearsal and performance of a great American musical. Music, acting and dance will all be skills which are developed.
Offered every other year. 3 credits.

MU 321 Small Music Chamber Ensemble

LASC—Creative Arts

Prerequisite: By audition or consent of the instructor

The performance of musical works by a small ensemble.
Offered every year. 1 or .5 credit.

MU 380 Form and Analysis

Prerequisite: MU 210

An introduction to and analysis of the formal structures of music.
Offered every 3 years. 3 credits.

MU 400 Independent Study in Music

Prerequisite: Consent of instructor

An opportunity for further study in a special field of interest under faculty supervision.
Offered every year. 1-6 credits.

MU 402 Applied Music

Prerequisite: Audition required

Note: Please refer to instrument listing for MU 102
Private instruction in an instrument or voice, one-half hour lesson per week. Studio fee required. May be repeated.
Offered every year. 1 credit.

MU 410 Special Topics in Music

This course will allow members of the music faculty to develop courses of special interest. This would include seminars on specific composers or compositions, in both classroom and applied studio environments.
Offered every 3 years. 3 credits.

Philosophy
Department of Philosophy

Faculty

Elena C. Cuffari, Assistant Professor (2014)
B.A., Swarthmore College; Ph.D., University of Oregon

José J. Mendoza, Assistant Professor (2012)
B.A., University of California at San Diego; M.A., San Francisco State University; Ph.D., University of Oregon

Daniel C. Shartin, Professor (1993)
B.A., M.A., Ph.D., University of California at Los Angeles

Henry C. Theriault, Professor (1998), Department Chair
B.A., Princeton University; Ph.D., University of Massachusetts

Kristin Waters, Professor (1999)
A.B., Bard College; M.A., Ph.D., University of Connecticut

The study of philosophy helps students to develop insights into the nature of individuals, societies, and values, and it helps them to think critically about themselves and the world around them. By studying philosophical works from the past and present, students engage theories about such central concepts as personhood, justice, gender, knowledge, and science.

Requirements for a Minor in Philosophy: 18 credits, including:

PH 260 Philosophy of Science
and at least one of:

PH 101 Ancient Western Philosophy
PH 102 History of Modern Western Philosophy, 1600-1800
PH 201 19th Century European Philosophy
PH 202 Selected Topic in 20th – 21st Century Philosophy

Requirements for a Minor in Philosophy and Law: 18 credits, including:

PH 231 Philosophy of Law
PH 240 Political Theory

A minimum of one course in logic:
PH 110 Critical Thinking
PH 115 Formal Logic I

A minimum of one course in ethics:
PH 130 Ethics: Human Values and Conduct
PH 131 Medical Ethics
PH 132 Business Ethics
PH 133 Social and Political Ethics

A minimum of one course in the history of philosophy:
PH 101 Ancient Western Philosophy
PH 102 History of Modern Western Philosophy, 1600-1800
PH 201 19th Century European Philosophy
PH 202 Selected Topic in 20th – 21st Century Philosophy

Any elective philosophy course if sixth course is not from one of the lists above.
Recommended:
PH 151 Race, Gender, and the Law
PH 215 Formal Logic II
PH 241 Genocide and Human Rights
PH 251 Mass Violence Against Women
PH 260 Philosophy of Science
PH 360 Philosophy of History

Minors should contact the Chair of the Philosophy Department to arrange for departmental advising, and they should select their philosophy courses in consultation with their departmental advisor. Advising can include support for a student's graduate, law, or other professional school application process.

Philosophy Courses

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

PH 100 Introduction to Philosophy

LASC—Human Behavior and Social Processes; Thought, Language and Culture

An introduction to the fundamentals of philosophy: its vocabulary, problems, and methods.
Offered every year. 3 credits.

PH 101 Ancient Western Philosophy

An introduction to fundamental topics in Western philosophy through works by philosophers including Plato and Aristotle.
Typically offered at least every two years. 3 credits.

PH 102 History of Modern Western Philosophy, 1600-1800

LASC—Human Behavior and Social Processes; Thought, Language and Culture

Engages central topics of Western philosophy through study of important modern philosophers, typically from Descartes through Kant.
Typically offered at least every two years. 3 credits.

PH 110 Critical Thinking

LASC—Thought, Language and Culture

An examination of critical thinking through informal logical analysis of argument styles, including identification of fallacious arguments.
Offered every year. 3 credits.

PH 115 Logic 1

LASC—Quantitative Reasoning

A study of introductory symbolic (formal) logic, covering sentential logic and the foundations of predicate logic.
Offered every year. 3 credits.

PH 130 Ethics: Human Conduct and Values

LASC—Human Behavior and Social Processes; Thought, Language and Culture

An examination of the nature of morality and value and their place in the world of human action.
Offered every year. 3 credits.

PH 131 Medical Ethics

LASC—Human Behavior and Social Processes; Thought, Language and Culture

An introductory-level examination of various ethical issues such as abortion, euthanasia, cloning and other genetics issues, access to healthcare, race and healthcare, and women's health.
Typically offered at least every three years. 3 credits.

PH 132 Business Ethics

LASC—Human Behavior and Social Processes; Thought, Language and Culture

An introduction to ethical theory and issues such as truth-in-advertising, product liability, affirmative action, employer and employee rights and duties, whistle blowing, and corporate responsibility.
Typically offered at least every two years. 3 credits.

PH 133 Social and Political Ethics

LASC—Human Behavior and Social Processes; Thought, Language and Culture; Diversity Across the Curriculum

Investigates major social and political theories and their applications to selected problems of justice.
Typically offered every two years. 3 credits.

PH 150 Women in Western Ideas

LASC—Human Behavior and Social Processes; Thought, Language and Culture; Diversity Across the Curriculum

Investigates the concept of woman from ancient Greece to the present.
Typically offered every two years. 3 credits.

PH 151 Race, Gender and the Law

LASC—Constitutions; Thought, Language and Culture; United States and Its Role in the World

A philosophical approach to issues of race and gender as expressed in legislation, judicial interpretation, enforcement, and public policy.
Typically offered at least every three years. 3 credits.

PH 163 Philosophy on Television

LASC—Thought, Language and Culture; United States and Its Role in the World

An introduction to philosophy through philosophical writings on popular television shows.
Typically offered at least every three years. 3 credits.

PH 170 Ancient Chinese Philosophies in a Cultural Perspective

LASC—Global Perspectives; Thought, Language and Culture

Examines ancient Chinese philosophies of Taoism, Confucianism, Buddhism, and neo-Confucianism in the context of contemporary developments in China; Communism, Capitalism, and Western influences considered.
Typically offered every two years. 3 credits.

PH 171 Buddhism: Theory and Meditative Experience

LASC—Global Perspectives; Thought, Language and Culture

Examines the origins, texts, principles, and practices of Buddhist philosophy including the Four Noble Truths and Eightfold Path for individual practice.
Typically offered at least every three years. 3 credits.

PH 172 Asian Philosophies and Contemporary Perspectives

LASC—Global Perspectives

Studies the philosophies of India, China, Japan, and the vitality of ancient traditions in a time of cultural change: Buddhism, Taoism, Confucianism, Jainism, Hinduism and Islam.
Typically offered every year. 3 credits.

PH 177 Introduction to Latin American Philosophy

LASC—Thought, Language and Culture; Global Perspectives; Diversity Across the Curriculum

An introduction to many of the principal texts, thinkers, and debates within Latin American philosophy.
Typically offered every year. 3 credits.

PH 180 Sports and Philosophy

LASC—Individual and Community Well-Being

Examines key ethical and other issues in sports, including competition, fair play, sportspersonship, drug use, race and gender, and violence.
Typically offered every year. 3 credits.

PH 190 Special Topics in Philosophy

An introductory philosophy course on a current or specialized topic.
Typically offered at least every three years. 3 credits.

PH 193 Special Topics in Philosophy for First-Year Students

All "193" courses are approved for LASC, but area(s) of approval may vary by section. See current course listing for specific LASC area approval.

An introductory course covering a topic of special interest to first-year students. Offered only as a First-Year Seminar.
Typically offered at least every three years. 3 credits.

PH 201 19th Century European Philosophy

LASC—Human Behavior and Social Processes; Thought, Language and Culture

Engages the radical new philosophical ideas developed on the European Continent in the 19th Century, beginning with Hegel.
Typically offered at least every three years. 3 credits.

PH 202 Selected Topic in 20th – 21st Century Western Philosophy

LASC—Human Behavior and Social Processes; Thought, Language and Culture

Addresses a specific topic in 20th – 21st Century Western Philosophy. The topic will be indicated in each PH 202 registration listing.
Typically offered at least every three years. 3 credits.

PH 215 Logic 2

LASC—Quantitative Reasoning

Prerequisite: PH 115

A study of intermediate symbolic (formal) logic, including multi-placed predicates and identity.
Typically offered at least every three years. 3 credits.

PH 220 Philosophy of Mind

Prerequisite: EN 102

An investigation of the relationship between mental processes and physical states, and the implications for such issues as personal identity and free will.
Typically offered at least every three years. 3 credits.

PH 221 Existentialism and Phenomenology

LASC—Thought, Language and Culture; Global Perspectives

Examines the Existentialist movement of the first half of the 20th Century.
Typically offered at least every three years. 3 credits.

PH 230 Religious Philosophies, East and West

An examination of the major religious systems, both oriental and occidental.
Typically offered at least every three years. 3 credits.

PH 231 Philosophy of Law

LASC—Constitutions; Human Behavior and Social Processes; United States and Its Role in the World; Diversity Across the Curriculum

Prerequisite: EN 102

Survey of the legal theories and issues and the philosophical bases of key legal and related political concepts.
Typically offered at least every three years. 3 credits.

PH 240 Political Theory

LASC—Thought, Language and Culture; United States and Its Role in the World

Investigates concepts including political power, equality, revolution, liberties, slavery, socialism, liberalism, patriarchal power, race and gender.
Typically offered at least every three years. 3 credits.

PH 241 Genocide and Human Rights

LASC—Global Perspectives; United States and Its Role in the World

Treats the ethical, political, and other dimensions of systematic mass violence through case studies and general theoretical analyses.
Typically offered at least every three years. 3 credits.

PH 242 Race, Nation, Class, Gender, and Sexuality

LASC—Human Behavior and Social Processes; United States and Its Role in the World

Examines these five important social categories that define the political, legal, economic, and cultural contexts in which we live.
Typically offered at least every three years. 3 credits.

PH 250 Global Feminisms

LASC—Global Perspectives; Thought, Language and Culture

Investigates the theoretical underpinnings of women's movements for equal rights around the globe.
Offered every 2 years. 3 credits.

PH 251 Mass Violence Against Women

LASC—Global Perspectives; United States and Its Role in the World

A philosophy-based, interdisciplinary course examining historical and contemporary mass violence against women.
Typically offered at least every three years. 3 credits.

PH 260 Philosophy of Science

LASC—Human Behavior and Social Processes; Thought, Language and Culture

Critically investigates such questions as: What distinguishes sciences from pseudo-sciences? When is a theory confirmed? What is a law of nature?
Typically offered at least every two years. 3 credits.

PH 261 Philosophy of Religion

An examination of the roles of faith and reason in beliefs concerning a deity and in such issues as the problem of evil.
Typically offered at least every two years. 3 credits.

PH 263 Film and Philosophy

LASC—Global Perspectives; Thought, Language and Culture

An intermediate study of films presenting philosophical ideas and of philosophical ideas about film.
Typically offered at least every three years. 3 credits.

PH 264 Philosophy of Education

Examines philosophical approaches to education through readings of various authors such as Plato, Rousseau, Wollstonecraft, and Dewey.
Typically offered at least every three years. 3 credits.

PH 290 Advanced Special Topics in Philosophy

A treatment of a current or specialized topic for students beyond the introductory level.
Typically offered at least every three years. 3 credits.

PH 301 Individual Figure in the History of Western Philosophy

Prerequisite: EN 102

Studies a specific Western philosopher. The philosopher for a given semester will be indicated in the course registration listings.
Typically offered at least every three years. 3 credits.

PH 302 Topics in American Philosophy

Prerequisite: EN 102

Treats a selected set of topics in the history of philosophy in the United States.
Typically offered at least every three years. 3 credits.

PH 320 Topics in Metaphysics and Epistemology

Prerequisite: EN 102

A study of selected topics in theories of mind, language, and knowledge.
Typically offered at least every three years. 3 credits.

PH 340 Selected Topics in Social and Political Philosophy

Prerequisite: EN 102

Explores a particular social and political issue, as indicated in the registration course listing, from a philosophical perspective.
Typically offered at least every three years. 3 credits.

PH 360 Philosophy of History

LASC—Global Perspectives; United States and Its Role in the World

Prerequisite: One semester of philosophy

Explores the different philosophical approaches to the study and writing of history and the nature of historical change and development.
Typically offered at least every three years. 3 credits.

PH 361 Philosophy of Art

Prerequisite: One semester of philosophy

An investigation of the nature of aesthetic experience.
Typically offered at least every three years. 3 credits.

PH 390 Independent Study

Prerequisite: Consent of the instructor

An individual or small group student study, under the guidance of a faculty member, of a special philosophical topic not covered in other course offerings.
3 credits.

PH 391 Internship in Philosophy

Prerequisite: EN 102

Provides an opportunity for mid-level or advanced students to increase their philosophical knowledge and understanding.
3 credits.

Political Science

Department of History and Political Science

Faculty

Joseph Preston Baratta, Professor (1999)
B.A., St. John's College; M.A., M.A.T., Ph.D., Boston University

Erika Briesacher, Assistant Professor (2012)
B.A., Illinois Wesleyan University; M.A., Southern Illinois University at Edwardsville; Ph.D., Kent State University

Tona J. Hangen, Associate Professor (2008)
B.S., Massachusetts Institute of Technology; Ph.D., Brandeis University

Frank S. Minasian, Associate Professor (1968), Department Chair
A.B., Clark University; M.A.T., Assumption College

Najib E. Saliba, Professor (1971)
A.B., Miami University; M.A., Ph.D., University of Michigan

Robert W. Smith, Assistant Professor (2007)
B.A., Syracuse University; M.A., Ph.D., College of William and Mary

David J. Twiss, Associate Professor (1968)
B.S., Ed.M., Worcester State College; M.A., Assumption College

Requirements for a Minor in Political Science: 18 credits
PO 101 Principles of Political Science
Political Science electives: 15 credits

Political Science Courses

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

PO 101 Principles of Political Science

LASC—Human Behavior and Social Processes; Global Perspectives; Diversity Across the Curriculum

An introduction to political analysis; study of the concepts of power, legitimacy, natural law, justice and liberty.
Offered every year. 3 credits.

PO 102 Constitutions: US and Massachusetts

LASC—Constitutions; United States and Its Role in the World

Examines the origins and development of the United States and Massachusetts Constitutions. Meets Massachusetts General Laws, Chapter 73, Sec 2A requirement.
Offered every year. 3 credits.

PO 103 Fundamentals of Legal Research

Locating the text of statutes, regulations and court decisions (state and national) for a particular date and on specific subjects.
Offered every 3 years. 1 credit.

PO 193 Special Topics in Political Science for First-Year Students

Introductory level course covering topics of special interest to first-year students. Offered only as a First-Year Seminar.
Offered every year. 3 credits.

PO/HI 201 International Relations I

LASC—Global Perspectives; United States and Its Role in the World; Writing Across the Curriculum

Prerequisite: PO 101 or HI 103 or HI 104, EN 101, EN 102 or EN 250

Theory and practice of international security (realism and internationalism) and international political economy (liberalism and protectionism) in their historical context.
Offered every year. 3 credits.

PO/HI 202 International Relations II

LASC—Global Perspectives; United States and Its Role in the World; Writing Across the Curriculum

Prerequisite: PO 101 or HI 103 or HI 104, EN 101, EN 102, or EN 250

The promise and problems of globalization (spread of free market capitalism and political democracy).
Offered every year. 3 credits.

PO 210 American Government

LASC—Human Behavior and Social Processes; United States and Its Role in the World

Examines our national government and politics.

Offered every year. 3 credits.

PO/HI 211 History of US Foreign Policy I

LASC—United States and Its Role in the World

Prerequisite: HI 111 or HI 112

Colonial origins to the era of the Spanish-American War. The sources and development of US foreign policy in that period.
Offered every year. 3 credits.

PO/HI 212 History of US Foreign Policy II

LASC—United States and Its Role in the World

Prerequisite: HI 111 or HI 112

From 1900 to recent times; US foreign policy traditions and the challenges of great power status.
Offered every year. 3 credits.

PO 213 The Modern Presidency

LASC—Human Behavior and Social Processes; United States and Its Role in the World

This course will examine the evolution of the presidency. Special attention is given to those presidents who have expanded the office.
Offered every 3 years. 3 credits.

PO 215 State and Local Government

LASC—Human Behavior and Social Processes; United States and Its Role in the World

Examines sub-national governments and politics in the United States; the structure and problems of these governments.
Offered every year. 3 credits.

PO 216 Political Parties and Pressure Groups

LASC—United States and Its Role in the World; Human Behavior and Social Processes

Examines the organization, functions, and methods of political parties; the role of interest groups in the American political process.
Offered every year. 3 credits.

PO 217 The Legislative Process

The nature and function of the US Congress, including legislative campaigns, politics, and major problems of Congress.
Offered every 3 years. 3 credits.

PO/HI 218 US Constitutional History I

LASC— Constitutions ; Human Behavior and Social Processes; United States and Its Role in the World

The development of American constitutional history to 1865.

Offered every 2 years. 3 credits.

PO/HI 219 US Constitutional History II

LASC— Constitutions ; Human Behavior and Social Processes; United States and Its Role in the World

The development of the U.S. Constitution since 1865.

Offered every 2 years. 3 credits

PO 220 Comparative Politics I

LASC—Global Perspectives; Human Behavior and Social Processes

A comparative study of the politics and governments of Great Britain, Germany, and Russia.

Offered every 3 years. 3 credits.

PO 221 Comparative Politics II

LASC—Global Perspectives; Human Behavior and Social Processes

A comparative study of the political and social systems of South Africa and India, including recent trends in their political development.

Offered every 3 years. 3 credits.

PO/HI 241 English Constitutional History

LASC—Global Perspectives; Human Behavior and Social Processes

Development of English Constitution from Magna Carta through revolution, supremacy of Parliament, reform acts, entry into European Union, and devolution.

Offered every 2 years. 3 credits.

PO/HI 259 Crisis Management

A study of the decision making process regarding crisis situations, i.e., the role of the President, Congress, Intelligence Community and the Military.

Offered every 2 years. 3 credits.

PO/HI 320 Citizen Nation

LASC—Constitutions; Thought, Language and Culture; United States and Its Role in the World; Diversity Across the Curriculum; Writing Across the Curriculum

Prerequisites: HI 111 or HI 112, EN 101, EN 102 or EN 250

Explores the history and meaning of citizenship in the United States, including discrimination, rights struggles and changing citizenship criteria.

Offered every 3 years. 3 credits.

PO/HI 322 Nationalism

Examines the theories of nationalism, the development of the modern nation-state, and its effect on global politics.

Offered every three years. 3 credits.

PO/HI 323 Empire

Prerequisite: Hi 103 and HI 104

Theories and models of colonization, the reaction of colonized peoples, and the way historians analyze imperialism from 1400 to 1920's.

Offered every three years. 3 credits.

PO/HI 330 Politics of the Middle East I

Prerequisite: PO 101 or HI 261 or HI 314

Discusses governments and politics of eastern Arab countries, Turkey, Iran, and Israel. International rivalries in the area are also discussed.

Offered every year. 3 credits.

PO 350 The Government and Politics of the Soviet Union and the Russian Federation

Prerequisite: PO 101

An analysis of the forces and institutions which have influenced political developments in the Soviet Union and the Russian Federation since 1917.

Offered every 3 years. 3 credits.

PO 355 Foreign Policy of the Soviet Union and the Russian Federation

Prerequisite: PO 101

An analysis of the instruments and developments of the Soviet Union's and the Russian Federation's foreign policies since 1917.
Offered every 3 years. 3 credits.

PO 370 Crisis Politics

Prerequisite: PO 101

Analysis of theories regarding the roots of violence, revolution, and terrorism. Special attention will be devoted to violence in America.
Offered every 2 years. 3 credits.

PO/HI 380 American Foreign Policy Since the Cold War

LASC—United States and Its Role in the World; Human Behavior and Social Processes

Prerequisite: PO 101 or HI 112 or HI 212

Instruments of American foreign policy; major foreign policy developments since 1989.
Offered every 2 years. 3 credits.

PO 400 Independent Study in Political Science

Prerequisite: Consent of Instructor

Special topics for advanced research and study under the guidance of a faculty member.
Offered every year. 1 - 3 credits.

PO/HI 440 Internship in American Studies

Prerequisite: Consent of Instructor

Internships in museums, archives, government agencies, etc. Performing a variety of tasks at beginning professional level in cooperating institutions.
Offered every year. 3 - 6 credits.

PO 450 Special Topics in Political Science

Selected areas of interest to students and instructors.
Offered every 3 years. 3 credits.

Psychology
Department of Psychology

Faculty

Amy Cota-McKinley, Associate Professor (2002)
B.A., University of Wisconsin-Milwaukee; M.S., Jacksonville State University; Ph.D., Colorado State University

Lori J. Dawson, Professor (1995)
B.A., Suffolk University; M.A. Ph.D., State University of New York at Albany

Charles R. Fox, Associate Professor (2013)
O.D., New England College of Optometry; B.A., M.A., St. John's University; Ph.D., Brandeis University

Bernard J. Guarini, Associate Professor (1965),
B.S., College of the Holy Cross; M.A., Clark University; M.A., C.A.G.S., Assumption College

Vrinda Kalia, Assistant Professor (2011)
B.A., Jesus and Mary College; M.A., Ph.D., Clark University

Bonnie G. Kanner, Professor (1997), Department Chair
B.A., M.S., C.A.S., State University of New York at Albany; Ph.D. Clark University

Richard K. Kimball, Associate Professor (1985)
A.B., Dartmouth College; Ph.D., State University of New York at Buffalo

Kristine McGuinn
Ph.D., M.A., University of Connecticut; B.S., Worcester State University

Lauren Mizock, Assistant Professor (2012)
B.A., Oberlin College; M.A., Ph.D., Suffolk University

Ryan E.B. Mruczek, Assistant Professor (2014)
B.S., Biological Science, University of Rochester; Ph.d., Neuroscience, Brown University

Nicole Rosa, Assistant Professor (2014)
B.A., Stonehill College; M.S.W., Boston College; M.A., Ph.D., Psychology, Brandeis University

Brandi Silver, Associate Professor (2003)
B.S., M.S., Ph.D., Colorado State University

Emily Soltano, Professor (1999)
B.A., Ph.D., State University of New York at Albany

Champika K. Soysa, Professor (2003)
B.A., Mount Holyoke College; M.A., Ph.D., Clark University

Psychology

Colleen Sullivan, Assistant Professor (2012)
B.S. Frostburg State University; M.A., Ph.D., University of Maryland at Baltimore

Seth Surgan, Associate Professor (2006)
B.A., University of North Carolina at Chapel Hill; M.A., Ph.D., Clark University

Marc J. Wagoner, Assistant Professor (2004)
B.A., Morehouse College; Ph.D., University of Minnesota

Psychology courses acquaint students with basic principles of learning, motivation, development, and interpersonal relationships, providing a foundation for effective living and a background for a variety of career opportunities. The major provides students with a wide range of marketable and graduate study skills that include interpersonal awareness, problem-solving, research, and computer literacy.

Baccalaureate degree holders are prepared for entry level positions in a broad range of areas including health and social services, mental health, organizational leadership and management, community relations, education, human resources, program development, public affairs, social science research, and programs for women. Psychology is recognized in Massachusetts as a certificate academic major for Early Childhood and Elementary Education students. Those who major in psychology are able to develop an expertise in one of the Department's areas of concentration: Mental Health Services, or Developmental Process. Those with bachelor's degrees in psychology work in the same fields as do psychologists with graduate degrees. Some of the department's alumni:

- Counsel or teach people in group homes, nursing homes, and clinics
- Are case managers in insurance companies
- Plan and execute research
- Help young people in juvenile courts, schools and recreational programs
- Are behavior specialists
- Counsel drug addicts and victims of abuse

The department provides solid preparation for graduate work in psychology by helping students develop specializations and providing opportunities for the development of excellent research skills. The department offers an HONORS program and an internship program and operates a state-of-the-art computer laboratory. Psi Chi, the national honor society in psychology, is available to outstanding students who major in the discipline.

The **minor** program offers an opportunity for students wishing to develop a core understanding of psychology. The minor is not meant for students whose primary interest is the study of psychology; instead, it is a complement to other fields of study where knowledge of psychology and its methods would be beneficial.

Admission Requirements: Admission is open to any student who is interested in psychology and who can maintain a 2.0 grade point average in the required and elective psychology courses.

Standards for Minimum Academic Performance in the Psychology Major: The Psychology major requires a minimum grade of C- in all courses applied to the major. Courses may be repeated. The C- minimum grade does not apply to psychology courses beyond those applied to the major (four specified, four from specified areas and four elective courses). Students must maintain a minimum overall GPA of 2.0 in the major, consistent with Worcester State University policy.

Requirements for a Major in Psychology: The Psychology major requires successful completion of 12 courses in Psychology. Four of these courses are specific core requirements; four are from specified areas and the remaining four are electives. The minimum of 37 credits must include the following four core courses:

PS 101 General Psychology
PS 205 Research Methods
PS 275 Psychological Statistics
PS 307 Applied Research Methods

and at least four courses (12 credits) from the following, including one from each of four different areas:

Area 1 — Developmental
1 — PS 210 Developmental Psychology
2 — PS 312 Psychology of Adolescence
3 — PS 322 Psychology of Aging

Area 2 — Social Psychology
1 — PS 250 Social Psychology
2 — PS 252 Applied Social Psychology

Area 3 — Personality and Abnormal Psychology
1 — PS 330 Theories of Personality
2 — PS 335 Abnormal Psychology
3 — PS 340 Introduction to Psychometrics

Area 4 — Learning and Cognition
1 — PS 325 Psychology of Learning
2 — PS 345 Cognitive Psychology

Area 5 — Biopsychosocial Processes
1 — PS 280 Sensation and Perception
2 — PS 380 Physiological Psychology
3 — PS 222 Introduction to Health Psychology

and 12 credits in psychology electives. At least three courses (nine credits) must be at a 300 and/or 400 level, and all three courses must be taken at Worcester State University.

Evening Psychology: The required core courses for the Psychology Major may be completed with evening or summer courses. Many core courses are offered in the evening during each academic year as well as some elective courses. Internships and independent study courses, however, are only offered in Fall and spring day courses.

HONORS Program: The HONORS program is designed to increase opportunities for students of outstanding ability to engage in independent work and prepare for more challenging futures. It is especially recommended for students planning to pursue graduate education.

The HONORS project must be completed and presented to the faculty sponsor. Students are required to make an oral presentation on the project in a session open to all faculty and students in the department.

Admission to the HONORS program is by application. The admission requirements, closing date for application and instructions for completing the application process may be obtained from the Department Office.

Concentrations: Students may choose to simply major in psychology *without* a particular specialization (by completing the Requirements for a Major in Psychology) or may choose to major in psychology *with* a specialization by completing the requirements for a concentration in Mental Health Services, or Developmental Processes. They may also specialize by completing the requirements for an Interdisciplinary Concentration in Women's Studies.

Requirements for a Major in Psychology, Concentration in Mental Health Services: 40 credits.

This concentration prepares students for graduate school and/or employment in agencies serving the mental health needs of special populations, including people with mental disabilities, addiction, and cognitive, emotional, and behavioral problems. In addition to the four core and four area courses in psychology, the following courses are required:

PS 330	Theories of Personality
PS 335	Abnormal Psychology
PS 340	Introduction to Psychometrics
PS 400	Internship in Psychology (3 hours) or PS 318 Behavior Management or PS 315 Physical and Sexual Abuse
PS 435	Clinical Psychology
PS 492	Capstone in Mental Health

Requirements for a Major in Psychology, Concentration in Developmental Processes: 37 to 43 credits.

This concentration provides background for students planning careers related to developmental disabilities, special education, child and adolescent services, or hospital and nursing home programs for the disabled or aging. Developmental Process is especially recommended for students in education.

The four core and four specified area psychology courses are required plus:

PS 210	Developmental Psychology
PS 312	Psychology of Adolescence or PS 322 Psychology of Aging
PS 325	Psychology of Learning or PS 345 Cognitive Psychology
PS 380	Physiological Psychology
PS 410	Seminar in Developmental Processes

and three electives selected from the following:

PS 310	Development of Exceptional Children and Youth
PS 318	Behavior Management
PS 320	Development of Thinking and Knowing
PS 355	Social and Personality Development
PS 400	Internship in Psychology

PS 400 Internship in Psychology is recommended for any student who has not had an appropriate fieldwork experience.

Requirements for a Major in Psychology, Interdisciplinary Concentration in Women's Studies: 15 credits. Psychology majors may elect an interdisciplinary concentration in Women's Studies beyond the requirements of the Psychology major. Five courses may be selected from any course with a "WO" prefix, from at least two disciplines.

Minor in Psychology: Students may choose to minor in psychology without a particular specialization (by completing the Requirements for a Minor in Psychology).

Requirements for a Minor in Psychology: The Psychology minor requires successful completion of six courses in Psychology. The minimum 18 credits must include:

PS 101	General Psychology

and 15 credits in psychology electives

Sample Timetable for Completion of Degree: Psychology

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
LASC	First-Year Seminar	3
EN 101	English Composition I	3
PS101	General Psychology	3
LASC	The United States and Its Role in the World (USW)	3
LASC	Global Perspective (GP)	3
	Semester Subtotal	**15**

Semester Two		
Course No.	**Course Name**	**Credits**
EN 102	English Composition II	3
LASC	Constitutions	3
PS Area	200 level Psych area (Not PS205)	3
LASC	Quantitative Reasoning (QR)	3
LASC	Thought, Language and Culture (TLC)	3
	Semester Subtotal	**16**
Comments		

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
PS200 level	200 level elective	3
PS200 level	200 level Area class	3
LASC	Natural Systems and Processes (NSP)	4
LASC	Global Perspectives (GP)	3
LASC	Human Behavior and Social Processes (HBS)	3
	Semester Subtotal	**16**

Semester Four		
Course No.	**Course Name**	**Credits**
PS205	Research Methods	3
PS275	Psychological Statistics	4
LASC	Natural Systems and Processes (NSP)	3
LASC	Thought, Language and Culture (TLC)	3
LASC	Creative Arts (CA)	3
	Semester Subtotal	**16**
Comments		

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
PS 307	Applied Research Methods	3
PS Area	PS Area class	3
LASC	Human Behavior and Social Processes (HBS)	3
LASC	Individual and Community Well-Being (ICW)	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Semester Six		
Course No.	**Course Name**	**Credits**
PS	PS Area Class	3
PS	Major Elective	3
LASC	Creative Arts (CA)	3
PS	Major Elective	3
PS	Major Elective	3
	Semester Subtotal	**15**
Comments		

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
LASC/PS	Capstone	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Semester Eight		
Course No.	**Course Name**	**Credits**
PS	Major Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments		

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

Psychology Courses (Undergraduate)

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

PS 101 General Psychology

LASC—Human Behavior and Social Processes

Introduction to history of psychology, scientific method; brain/nervous system, development, learning, motivation, sensation/perception, personality, psychopathology, psychotherapy, cognitive processes, social behavior.
Offered every year. 3 credits.

PS 191 Topics in Psychology

This course is an exploration of current and specialized topics in Psychology. It will not be counted toward the major.
Offered every year. 3 credits.

PS 193 Special Topics in Psychology for First-Year Students

All "193" courses are approved for LASC but may vary by section. See current course listing for specific LASC area approval.

Introductory level course covering topics of special interest to first-year students. Offered only as a First-Year Seminar.
Offered every year. 3 credits.

PS 205 Research Methods

LASC—Writing Across the Curriculum

Prerequisite: PS 101, EN 102

Exploration of psychological research methodologies including: scientific method; design, conduction, analysis, and reporting of research; ethical principles and APA format.
Offered every year. 3 credits.

PS 210 Developmental Psychology

LASC—Human Behavior and Social Processes

Prerequisite: PS 101

Physical, social, emotional, intellectual, and moral development from conception to adolescence is examined within a framework of various theories.
Offered every year. 3 credits.

PS 222 Introduction to Health Psychology

Prerequisites: PS 101

Introduction to the areas and methods of Health Psychology. Topics include: epidemiology, behavior change, compliance, alternative medicine, healing, chronic illness.
Offered every 2 years. 3 credits.

PS 224 Positive Psychology

Prerequisite: PS 101

Exploration of the psychological research on a fulfilling and flourishing life including happiness, self-esteem, love, goalsetting, mindfulness and spirituality.
Offered every other year. 3 credits

PS 250 Social Psychology

Prerequisite: PS 101

The psychological dynamics of social interaction including verbal and nonverbal communication, group dynamics and attitude formation and change.
Offered every year. 3 credits.

PS 252 Applied Social Psychology

Prerequisite: PS 101

Survey of applied social psychology including: psychology in educational, organizational, and legal settings; diversity, environmental, health, media, and consumer issues.
Offered every year. 3 credits.

PS 255 Psychological Foundations of Diversity

Prerequisite: PS 101

Explores the gender, racial/ethnic, multiple-group membership, cultural, social class, religious, disability and sexual orientation facets of diversity.
Offered every 3 years. 3 credits.

PS 260 Psychology of Human Sexuality

Prerequisite: PS 101

Sexuality as a foundation of personality. The wide range of human sexuality is explored; sexual development, roles, attitudes and behaviors.
Offered every 2 years. 3 credits.

PS 263 Psychology of Women

Prerequisite: PS 101

Women's psychological development throughout the lifespan will be examined, including female development, achievement, stereotyping, stress, violence and psychological disorders.
Offered every 2 years. 3 credits.

PS 275 Psychological Statistics

LASC—Quantitative Reasoning; Quantitative Literacy Across the Curriculum

Prerequisites: PS 101, Score of 3 on math Accuplacer or passing grade in college level math class

Data tabulation; graphing; measurement of central tendency, variability and correlation; hypothesis testing applied to psychological and sociological data. Hand and computer analysis.
Offered every year. 4 credits.

PS 280 Sensation and Perception

Prerequisite: PS 101

Selected sensory and perceptual processes are studied in the context of current theory and research.
Offered every year. 3 credits.

PS 295 Special Topics in Psychology

Prerequisites: PS 101

Selected areas of mutual interest to instructor and students. Topics and prerequisites are announced in advance.
Offered every year. 3 credits.

PS 297 Independent Study: Research in Psychology

Prerequisites: PS 101, PS 205 or PS 275, Consent of instructor

Students pursue an area of research interest under faculty supervision. May include assisting faculty with ongoing research. Written report(s) required.
Offered every semester. 1-3 credits

PS 307 Applied Research Methods

Prerequisites: PS 101, PS 205, PS 275

Extension of research design and methods introduced in PS 205: Research Methods, including applied research design, statistical analysis, and scientific writing.
Offered every year. 3 credits.

PS 310 Development of Exceptional Children/Youth

Prerequisites: PS 101, PS 210

Characteristics and needs of children with exceptionalities including behavior retardation, giftedness, physical or sensory disabilities, emotional or social maladjustments.
Offered every 2 years. 3 credits.

PS 312 Psychology of Adolescence

Prerequisite: PS 101, PS 210

The mental, emotional, social and physical changes of contemporary adolescence are examined with emphasis on family, peer and school influences.
Offered every year. 3 credits.

PS 315 Physical and Sexual Abuse

Prerequisites: PS 101

Etiology, characteristics, consequences, treatment, and prevention of various forms of physical, sexual, and emotional abuse in children, adolescents, and adults.
Offered every 2 years. 3 credits.

PS 318 Behavior Management Techniques

Prerequisites: PS 101

Considers the basic concepts of behavior management, including behavior modification for exceptional and normal populations.

Offered every year. 3 credits.

PS 320 Development of Thinking and Knowing

Prerequisites: PS 101, PS 210

This course will examine human development of thinking and knowing from the Piagetian/Neo-Piagetian, Information Processing and Sociocultural Perspectives.
Offered every year. 3 credits.

PS 322 Psychology of Aging

Prerequisite: PS 101, PS 210

Adulthood and old age are studied with special emphasis on current developmental theories.
Offered every year. 3 credits.

PS 325 Psychology of Learning

Prerequisite: PS 101

Learning as a fundamental concept in understanding behavior; examines principles and theories of learning, emphasizing experimental findings.
Offered every year. 3 credits.

PS 330 Theories of Personality

Prerequisites: PS 101

A survey of major theories of personality. Why people behave as they do is explored through the different theories.
Offered every year. 3 credits.

PS 335 Abnormal Psychology

Prerequisite: PS 101

Etiology, dynamics, and treatment of psychopathology and their relation to normal personality are considered from traditional and contemporary perspectives.
Offered every year. 3 credits.

PS 340 Introduction to Psychometrics

Prerequisites: PS 101, PS 275

Methods and instruments used in the evaluation of the psychological attributes of human beings.
Offered every year. 3 credits.

PS 345 Cognitive Psychology

LASC—Writing Across the Curriculum

Prerequisite: PS 101, EN 102

This course introduces students to areas of cognitive psychology including memory, language processing and decision making.
Offered every year. 3 credits.

PS 350 Group Dynamics

Prerequisite: PS 101

Group process deals with the basic issues of leadership, membership, developmental stages and types of groups, theoretically and experientially.
Offered every year. 3 credits.

PS 355 Social and Personality Development

Prerequisites: PS 101, PS 210

This course will examine social and personality development from Piagetian, Neo-Piagetian and Sociocultural perspectives.
Offered every year. 3 credits.

PS 360 Industrial/Organizational Psychology

Prerequisite: PS 101

A concentration on the work of the psychologist in industry/business and other organizational settings in the public and private sectors.
Offered every year. 3 credits.

PS 365 Cultural Psychology

LASC—Thoughts, Language and Culture; Human Behavior and Social Processes; Writing Across the Curriculum

Prerequisite: PS 101, EN 102, PS 210

This course addresses the role culture plays in human psychological processes and approaches to researching cultural aspects of human action.
Offered every year. 3 credits.

PS 380 Physiological Psychology

Prerequisite: PS 101

Psychobiological problems; current physiological research in emotion, motivation and learning and the use of physiological methods in psychology.
Offered every year. 3 credits.

PS 385 Motivation

Prerequisite: PS 101

A study of conditions that arouse, direct and sustain behavior. Topics include: goals, competence, control, arousal, self-esteem, achievement and stress.
Offered every year. 3 credits.

PS 390 History and Systems of Psychology

Prerequisite: PS 101

An historical perspective, tracing the development of psychology into a science.
Offered every year. 3 credits.

PS 400 Internship in Psychology

Prerequisite: Consent of Instructor

Provides opportunity to advanced students to increase experience through internship with sponsoring community organization, institution, or business under appropriate supervision.
Offered every year. 1-3 credits

PS 405 Independent Study: Topics in Psychology

Prerequisites: PS 101, PS 205, PS 275, Consent of Instructor

Students pursue an area or topic of interest under faculty supervision. Written report(s) required
Offered every semester. 3 credits.

PS 407 Independent Study: Advanced Research in Psychology

Prerequisites: PS 101, PS 205, PS 275, PS 307, Consent of instructor

Students undertake empirical research under faculty supervision. Written report(s) required.
Offered every semester. 3 credits.

PS 410 Seminar in Developmental Psychology

Prerequisites: PS 101, PS 210 or PS 312

Patterns of physical, mental and emotional development are explored with emphasis on independent work.
Offered every year. 3 credits.

PS 435 Clinical Psychology

Prerequisites: PS 101, PS 335

Practical issues, methods and techniques of current psychotherapies with emphasis on psychoanalytic, client-centered, and behavioral approaches.
Offered every year. 3 credits.

PS 460 Advanced Industrial/Organizational Psychology

Prerequisites: PS 101, PS 360, any two of PS 250, PS 340, PS 350, PS 385

An in-depth exploration of selected topics from the field of Industrial/Organizational Psychology.
Offered every year. 3 credits.

PS 480 Advanced Research Methods

Prerequisites: PS 101, PS 205, PS 275, PS 307

Laboratory procedures and techniques on an advanced level applied to selected independent projects.
Offered every 3 years. 3 credits.

PS 485 Psychobiology of Mental Disorders

Prerequisites: PS 101, PS 380

Human brain behavior relationships; neurological correlates of attention, cognition, perception, consequences of damage upon behavior.
Offered every 2 years. 3 credits.

PS 492 Seminar in Mental Health

Prerequisites: PS 101, PS 330, PS 335 and either PS 340 or PS 435

This capstone seminar emphasizes knowledge and experiential skill-building necessary for entry into the field of Mental Health Services.
Offered every year. 3 credits.

PS 499: Honors Thesis

Prerequisites PS 101, PS 205, PS 275, PS 307, Concurrent registration in PS 407, Consent of Instructor

Students participate in a seminar, complete an ongoing Honors Project, and prepare a thesis and summary poster for presentation.
Offered in Spring. 1 credit

Sociology

Department of Sociology

Faculty

Michelle Corbin, Assistant Professor (2011)
B.S., Western Michigan University; M.S. Eastern Michigan University;
Ph.D., University of Maryland

Sonya Conner, Assistant Professor (2011)
B.S., University of Louisiana at Lafayette; M.A., Ph.D., University of Oklahoma

Matthew Johnsen, Associate Professor (2007), Department Chair
A.B., Dartmouth College; M.S., New Hampshire College; Ph.D., North Carolina State University

Fortunata S. Makene, Associate Professor (2007)
B.A., University of Dar Es Salaam, Tanzania; M.S., St. Cloud State University; Ph.D., University of Minnesota

Francisco Vivoni, Assistant Professor (2013)
B.A., Universidad Puerto Rico en Rio Piedras;
Ph.D., University of Illinois at Urbana

The sociology department strives to help its students develop insights about the workings of the social world and the influence of social structure. Its goal involves not just understanding the world, but working to change it. The departmental curriculum aims to help students uncover root causes of social problems and refine their personal understanding of social responsibility and economic justice. The sociology department embraces the goals of personal, community, and global citizenship. Ultimately, the department strives to provide guidance and teaching designed to help students live better lives in an atmosphere of mutual respect.

As a department engaged in public sociology, faculty strive to teach in ways that stress critical thinking joined with action, to advise and mentor students to prepare for lifelong learning and meaningful careers, to encourage students and faculty to collaborate with peers and partners in the community and contribute to the field, and to engage in service to prepare sociology majors to act in complex settings at home and at work, in their communities and the world. The department encourages majors and minors to participate in study away/study abroad activities.

Admission Requirements: Admission to the Sociology major is based on maintaining acceptable grades in the general foundation requirements and interest in the field of sociology. Interested persons may contact the Chair of the Sociology Department for further information. Upon admission, each major is assigned an advisor and receives an orientation in sociology.

Requirements for a Major in Sociology: 30 credits including:

SO 100	Introduction to Sociology
SO 270	Social Theory I
SO 275	Social and Behavioral Statistics
SO 280	Research Methods of Sociology

A maximum of two courses at the 100 level
A minimum of three courses at the 300 and/or 400 level

All courses taken beyond the minimum requirements will be credited as electives.

Requirements for a Minor: 18 credits including:

SO 100	Introduction to Sociology or
SO 200	Contemporary Social Problems

All prerequisites for 300 and 400 level courses must be met if the student wishes to elect courses at these levels.

Five Year Bachelor of Science in Sociology/Masters in Non-Profit Management

Through a combined five-year Bachelor of Science in Sociology/Masters in Non-Profit Management program of studies, it is possible for motivated full-time students who are sociology majors to complete a five-year program leading to degrees including both a Bachelors in Sociology and Masters in Non-Profit Management.

Students who have completed 90 undergraduate credits may apply for admission into the special five-year BS/MS program if they have an overall GPA of not less than 3.0 and a sociology major GPA of not less than 3.25. Students must complete an undergraduate internship, independent study or capstone project that incorporates work with a community-based organization as part of their undergraduate work. Students must meet all other requirements for admission to the Masters in Non-Profit Management. However, the GRE requirement is waived for students with an overall GPA of 3.25 or higher.

In order to complete the joint degree, in the final year of their Bachelors work, students take three graduate-level courses (9-11 credits) which would be counted toward both their undergraduate credit requirements and also toward requirements for the masters degree. This would allow students to complete course requirements for the Bachelors and Masters degrees in five years (60 months).

Sample Timetable for Completion of Degree: Sociology

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
EN 101	English Composition I	3
LASC	First-Year Seminar	3
SO 100	Introduction to Sociology	3
LASC	Quantitative Reasoning (QR)	3
LASC	Constitutions	3
	Semester Subtotal	**15**

Semester Two		
Course No.	**Course Name**	**Credits**
EN 102	English Composition II	3
SO	Any 100 or 200 level course in major	3
LASC	Natural Systems and Processes (NSP)	4
LASC	Thought, Language and Culture(TLC)	3
LASC	Human Behavior and Social Processes (HBS)	3
	Semester Subtotal	**16**
Comments		

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
SO 270	Social Theory I	3
SO 280	Research Methods of Sociology	3
LASC	Global Perspectives (GP)	3
LASC	Natural Systems and Processes (NSP)	3
LASC	Creative Arts (CA)	3
	Semester Subtotal	**15**

Semester Four		
Course No.	**Course Name**	**Credits**
SO 275	Social and Behavioral Statistics	3
SO	Any 200 level class	3
LASC	Global Perspectives (GP)	3
LASC	Creative Arts (CA)	3
LASC	The United States and Its Role in the World (USW)	3
	Semester Subtotal	**15**
Comments		

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
SO	300/400 level course	3
SO	Distribution elective in Major	3
LASC	Human Behavior and Social Processes (HBS)	3
LASC	Individual and Community Well-Being (ICW)	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Semester Six		
Course No.	**Course Name**	**Credits**
SO	300/400 level course	3
SO	Distribution elective in Major	3
LASC	Thought, Language and Culture (TLC)	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments		

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
LASC/ SO 499	Sociology Capstone (or LASC Capstone)	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Semester Eight		
Course No.	**Course Name**	**Credits**
SO	300/400 Level Course	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments		

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

Sociology Courses

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

SO 100 Introduction to Sociology

LASC—Human Behavior and Social Processes

Introduction to the scientific study of social life through the identification and analysis of regularized patterns of human behavior and relationships.
Offered every year. 3 credits.

SO 110 Cultural Anthropology

Cross cultural analysis of the human capacity, for adaptation and technological and ideological development. Significant field studies will be examined.
Offered every year. 3 credits.

SO 190 Sport and Society

Analysis of sport as a social system. The implication of sport within interrelational contexts of other social systems.
Offered every 2 years. 3 credits.

SO 193 Special Topics in Sociology for First-Year Students

All "193" courses are approved for LASC but may vary by section. See current course listing for specific LASC area approval.

Introductory level course covering topics of special interest to first-year students. Offered only as a First-Year Seminar.
Offered every year. 3 credits.

SO 199 Special Topics

Introductory level topics. Topic announced at pre-registration.

Offered every 3 years. 3 credits.

SO 200 Contemporary Social Problems

LASC—Human Behavior and Social Processes

Analysis of social, political, urban, and industrial changes which have introduced specific problems into contemporary society.
Offered every year. 3 credits.

SO 205 Issues in American Society

Prerequisite: SO 100

Identification and analysis of current social issues facing contemporary American society, and critique of policies and programs designed to resolve these issues.
Offered every 2 years. 3 credits.

SO 215 Medical Sociology

LASC—Human Behavior and Social Processes; Individual and Community Well-Being

Prerequisite: SO 100

The structure of health care delivery systems and role interaction between levels of health care personnel, patients, and families of patients.
Offered every year. 3 credits.

SO 220 Sociology of the Family

LASC—Human Behavior and Social Processes

Prerequisite: SO 100

A comparative approach to the study of family systems with emphasis on the changing patterns of family life.
Offered every year. 3 credits.

SO 225 Family in Middle Eastern Societies

Prerequisite: SO 100

Study of family systems in the Middle East and the forces of change affecting traditional family patterns.
Offered every 3 years. 3 credits.

SO 230 Political Sociology

Prerequisite: SO 100

Foundations of social movements in political phenomena, social conditions and emerging political institutions; the structural basis of social change and politics.
Offered every 3 years. 3 credits.

SO 235 Music and Social Change

LASC—Creative Arts, Human Behaviors and Social Processes

Using case studies, social theory and historical materials, this course explores the role of music in social change.
Offered every 3 years: 3 credits.

SO 240 Sociology of Education

Prerequisite: SO 100

Study of modern educational systems, emphasizing the social, political and economic factors that influence its organization and its functions.
Offered every 2 years. 3 credits.

SO 250 Sociology of Religion

LASC—Human Behavior and Social Processes; Individual and Community Well-Being; Diversity Across the Curriculum

Prerequisite: SO 100

A cross-cultural comparative study of the nature of religious institutions as systems of socially determined and socially relevant beliefs and practices.
Offered every 2 years. 3 credits.

SO 255 Sociology of Disability

LASC—Human Behavior and Social Processes; Individual and Community Well-Being; Diversity Across the Curriculum

Using theory and practical application, this course explores the impact of impairment and disability within a societal context.
Offered every 2 years: 3 credits.

SO 270 Social Theory I

Prerequisite: SO 100

Fundamental concepts and intellectual traditions, especially the contributions of Comte, Spencer, Marx, Toennes, Durkheim, and Simmel.
Offered every year. 3 credits.

SO 275 Social and Behavioral Statistics

Prerequisites: SO 100 and any 200 Sociology Course; SO 280 recommended

Data tabulation; graphing; measurement of central tendency, variability, and correlation; hypothesis testing applied to psychological and sociological data. Hand and computer analysis.
Offered every year. 3 credits.

SO 280 Research Methods of Sociology

Prerequisite: SO 100

An analysis of the research function in sociology; the conduct of research appropriate to undergraduate students; the formal presentation of research papers.
Offered every year. 3 credits.

SO 285 Race, Class and Gender

LASC—Diversity Across the Curriculum; Human Behavior and Social Processes

An introduction to dominant-minority group relations through the investigation of the patterns and dynamics of differentiation, inequality and discrimination.
Offered every semester. 3 credits.

SO 295 Sociology of Death and Dying

LASC—Diversity Across the Curriculum; Human Behavior and Social Processes; Individual and Community Well-being

Prerequisite: SO 100

The course explores the sociological concepts and perspectives as they relate to death and dying and how American society deals with illness, dying death and breavement.

SO 299 Special Topics

Prerequisite: SO 100

Intermediate level topics. Topic announced at pre-registration.

Offered every 3 years. 3 credits.

SO 300 Social Change

LASC—Social Processes and Community Well-Being; Writing Across the Curriculum

Prerequisites: Two courses at 200-level, EN 102

A study of the conditions, patterns, and consequences of social transformations with emphasis on institutional and individual patterns of adjustment and adaptation.
Offered every 3 years. 3 credits.

SO 305 Applied Sociology and Community Research

Prerequisites: SO 100, SO 280; SO 275 recommended

Explores the theory and methods of applied sociology, including ethnographic, institutional, participatory research techniques in community settings.
Offered every 3 years. 3 credits.

SO 310 Formal Organizations

Prerequisites: Two courses at 200-level

The structure and function of, and communications systems within, formal and complex organizations; primary focus on theoretical aspects of organizations.
Offered every 3 years. 3 credits.

SO 315 Social Movements

Prerequisites: Two courses at 200-level

Processes by which new norms and forms of social organization emerge from group behavior, aggregate behavior, and social movements.
Offered every 3 years. 3 credits.

SO 330 Criminology

Prerequisites: Two courses at 200-level

Theoretical perspective on crime, criminals and the social aspects of interrelationships within, and between the components of the criminal justice system.
Offered every year. 3 credits.

SO 335 Juvenile Delinquency

Prerequisites: Two courses at 200-level

Dynamics of small group involvement and other environmental influences in the shaping of an individual's personality.
Offered every 3 years. 3 credits.

SO 340 Social Psychology

Prerequisites: Two courses at 200-level

Dynamics of small group involvement and other environmental influences on the shaping of an individual's personality.
Offered every year. 3 credits.

SO 345 Sociology of Deviance

Prerequisites: Two courses at 200-level

Study of the nature and consequences of deviant behavior with emphasis on socialization, social relationships, and patterns of social control.
Offered every 3 years. 3 credits.

SO 350 Social Stratification

LASC—Human Behavior and Social Processes; Writing Across the Curriculum; Diversity Across the Curriculum

Prerequisites: Two courses at 200-level, EN 102

Investigation of the recurrent patterns of social differentiation, social ranking, and the unequal distribution of rewards.
Offered every 2 years. 3 credits.

SO 355 Gender and Sexuality

LASC—Human Behavior and Social Processes; Individual and Community Well-Being; Diversity Across the Curriculum

This course introduces the sociologist study of gender and sexuality. This course examines how social institutions and cultural norms construct particular gender roles and sexual identities within society.
Offered every year. 3 credits.

SO 360 Urban Sociology

Prerequisites: Two courses at 200-level

A cross-cultural study of urban social systems and the phenomena and problems connected with the planning process.
Offered every 2 years. 3 credits.

SO 375 Contemporary Social Theory

Prerequisites: SO 270

Review of sociological theories, analytical tools, and conceptual schemes prevalent in contemporary debate and consensus.
Offered every 3 years. 3 credits.

SO 400 Independent Study

Prerequisites: Four prior courses in sociology and consent of instructor/chair.

For advanced sociology majors only; topic to be approved by an independent study advisor.
Offered every year. 1-6 credits.

SO 410 Field Work

Prerequisites: Four prior courses in sociology and consent of instructor/chair.

Data collection based on participant observation within a social service organization; assignment approval by field work advisor.
Offered every year. 1-6 credits.

SO 420 Seminar in Sociology

Prerequisites: Four prior courses in sociology and consent of instructor/chair.

Advanced study topics in selected areas of sociology; announcement made at pre-registration time.
Offered every 3 years. 1-3 credits.

SO 425 Global Development

LASC—Global Perspectives; Human Behavior and Social Processes; Writing Across the Curriculum

Prerequisite: EN 102

This course gives an overview of the field of development and processes of development and underdevelopment in developing countries.
Offered every 2 years. 3 credits.

SO 435 Introduction to Social Enterprise

LASC—Human Behavior and Social Processes; Individual and Community Well-Being; Writing Across the Curriculum

Prerequisites: 60 undergraduate credits, EN 120, EN 102

This course examines social entrepreneurship and social enterprise in a global context.
Offered every year. 3 credits.

SO 499 Sociology Capstone

LASC - Major Capstone

Prerequisites: SO 270, SO 275, SO 280, EN 102

This course is an overview of the discipline of sociology, emphasizing mastery of the discipline at an undergraduate level.
Offered every year. 4 credits.

Español

Spanish
Department of World Languages

Faculty

Guillermina Elissondo, Professor (1999)
B.A., Universidad Católica de Mar del Plata, Argentina; M.A., Michigan State University; Ph.D., University of North Carolina at Greensboro

Judith Jeon-Chapman, Professor (1993)
B.A., College of St. Benedict; M.A., Ph.D., University of Washington

Antonio Guijarro - Donadiós, Assistant Professor (2014)
B.A., Universidad Complutense de Madrid, Spain; M.A. Salford University, England; M.A., Ph.D. University of Connecticut

Ana Pérez-Manrique, Associate Professor (2006), Department Chair
B.A., Universidad de Málaga, Spain; M.A., University of South Carolina; Ph.D., Florida State University

Juan Orbe, Professor (1996)
B.A., Universidad Nacional de La Plata, Argentina; M.A., Ph.D., Michigan State University

Courses in Spanish are designed for students whose interests and career plans have an international or multi-ethnic focus. Students who major or minor in a language will develop listening, speaking, reading, and writing fluency and will study the culture, history and literature of the people who use the language.

Alpha Mu Gamma, a national honor society in foreign languages, recognizes excellence in the study of foreign languages. Any Worcester State University student who receives two "A's" in Spanish, or two "A's" in French, at any level and who has a 3.0 cumulative GPA is eligible to join. Application for membership is in early February. Contact Professor Judith Jeon-Chapman.

The Major in Spanish: The major in Spanish is designed to offer students the opportunity to consolidate their study of the language with a related field of study. Students who major in Spanish can choose to concentrate on 1) the Standard Spanish Major, 2) K-12 Teaching Certification in Spanish or 3) Spanish for the Professions. All of these programs have been configured to maximize the potential of the student in today's professional climate as well as to prepare the student for admittance into graduate programs at other institutions. Students who major in Spanish will develop fluency in listening, speaking, reading and writing skills and will study the culture, history and literature of Spain and the Americas.

Students are strongly encouraged to take a Placement Exam in Spanish at the Academic Success Center. Study-Abroad opportunities are available for language study in several Spanish-speaking countries.

Information on the Spanish Clinic, Spanish Club, and Spanish Table can be found at the Department of World Languages website.

Requirements for a Major in Spanish: 36 credits including:

SP 210-211	Intermediate Spanish courses (6 credits maximum: These courses may be waived by oral and/or written examination)
SP 321	Advanced Spanish Composition I *
SP 322	Advanced Spanish Composition II
SP 323	Advanced Spanish Conversation I **
SP 326	Spanish for the Professions
SP 331	Spanish Civilization
SP 332	The Hispanic World Today or SP 333 The Hispanic Presence in the United States

Spanish Literature courses (6 credits minimum)
Spanish Electives in Advanced Language, Civilization or Literature

Students must demonstrate competency in a second foreign language at the **elementary** level.

* *Required of all students unless exempted by the Department of World Languages.*

***This course is a required course for all non-native Spanish speakers.*

(Students with advanced knowledge of Spanish should begin at 300-level)

Sample Timetable for Completion of Degree: Spanish

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
LASC	First-Year Seminar	3
EN 101	English Composition I	3
SP 210	Intermediate Spanish I	3
LASC	Natural Systems and Processes (NSP)	3
LASC	US and the World (USW)	3
	Semester Subtotal	**15**

Semester Two		
Course No.	**Course Name**	**Credits**
EN 102	English Composition II	3
LASC	Constitutions	3
SP 211	Intermediate Spanish II	3
LASC	Quantitative Reasoning (QR)	3
LASC	Global Perspectives (GP)	3
	Semester Subtotal	**15**
Comments		

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
SP 321	Advanced Spanish Composition I	3
SP 323	Advanced Spanish Conversation I	3
WL/LASC	Other Language 101 course (TLC)	3
LASC	Natural Systems and Processes (lab) (NSP)	4
SELECT	General Elective	3
	Semester Subtotal	**16**

Semester Four		
Course No.	**Course Name**	**Credits**
SP 322	Advanced Spanish Composition II	3
SP 331	Spanish Civilization	3
WL	Other Language 102 course	3
LASC	Human Behavior and Social Processes (HBS)	3
LASC	Creative Arts (CA)	3
	Semester Subtotal	**15**
Comments		

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
SP 326	Spanish for the Professions	3
SP	Either 332 or 333	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Semester Six		
Course No.	**Course Name**	**Credits**
SP	300 Level Elective	3
SP	300/400 Literature Elective	3
LASC	Individual and Community Well-Being (ICW)	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments		

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
SP	300/400 Literature Elective	3
LASC/SP	Capstone	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Semester Eight		
Course No.	**Course Name**	**Credits**
SP	300/400 Literature Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments		

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

Requirements for a Major in Spanish with Concentration in Spanish/Education: 36 credits including:

SP 210-211	Intermediate Spanish courses (6 credits maximum: These courses may be waived by oral and/or written examination)
SP 321	Advanced Spanish Composition I *
SP 322	Advanced Spanish Composition II
SP 323	Advanced Spanish Conversation I **
SP 326	Spanish for the Professions
SP 331	Spanish Civilization
SP 332	The Hispanic World Today or SP 333 The Hispanic Presence in the United States
SP 355	The Effective Teaching of a Foreign Language

Spanish Literature courses (9 credits minimum)

* *Required of all students unless exempted by the Department of World Languages.*

***This course is a required course for all non-native Spanish speakers.*

(Students with advanced knowledge of Spanish should begin at 300-level)

Students must also complete the requirements established by the Education Department. The course of study which leads to teaching certification is in Secondary Education.

Students must also demonstrate competency in a second foreign language at the intermediate level.

Sample Timetable for Completion of Degree: Spanish, Secondary Education Minor

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
LASC	First-Year Seminar	3
EN 101	English Composition I	3
SP 210	Intermediate Spanish I	3
PS 101	General Psychology I	3
WL/LASC	Other Language 101 course (TLC)	3
	Semester Subtotal	**15**

Semester Two		
Course No.	**Course Name**	**Credits**
EN 102	English Composition II	3
LASC	Constitutions	3
SP 211	Intermediate Spanish II	3
PS 312	Psychology of Adolescence	3
WL	Other Language 102 course	3
	Semester Subtotal	**15**
Comments		

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
SP 321	Advanced Spanish Composition I	3
SP 323	Advanced Spanish Conversation I	3
ED 149	Introduction to the Teaching Profession	3
WL	Other Language 210 course	3
LASC	Natural Systems and Processes (NSP)	4
	Semester Subtotal	**16**

Semester Four		
Course No.	**Course Name**	**Credits**
SP 322	Advance Spanish Composition II	3
SP 331	Spanish Civilization	3
ED 250	Educational Psychology Middle and Secondary Majors	3
WL	Other Language 211 course	3
LASC	Natural Systems and Processes (NSP)	3
LASC	Individual and Community Well-Being (ICW)	**3**
	Semester Subtotal	**18**

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
SP 326	Spanish for the Professions	3
SP	Either 332 or 333	3
ED 251	Foundations of Education	3
LASC	Global Perspectives (GP)	3
LASC	Quantitative Reasoning (QR)	3
LASC	Creative Arts (CA)	3
	Semester Subtotal	**18**

Semester Six		
Course No.	**Course Name**	**Credits**
SP	300/400 Literature Elective	3
SP	300/400 Literature Elective	3
ED 270	Diversity and Multicultural Education	3
SELECT	General Elective	3
LASC	The United States and Its Role in the World (USW)	3
	Semester Subtotal	**15**

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
LASC/SP	300 or 400 Level Literature Elective/CAPSTONE	3
SP 355	Effective Teaching of a Foreign Language	3
ED 351	Principles of Curriculum	3
ED 353	Effective Teaching in the Secondary School	3
ED 371**	Contemporary Issues and Trends in Secondary School Education	3
SELECT	General Elective	3
	Semester Subtotal	**18**

Semester Eight		
Course No.	**Course Name**	**Credits**
ED 480	Student Teaching	9
ED 424	Seminar: Teaching Practicum	3
	Semester Subtotal	**12**
Comments	** - Students must take and pass the MTEL in their subject matter to be admitted into Stage 3.	

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

Concentration in Spanish for the Professions: (36 credits)

This concentration must be completed in conjunction with a minor or major in another field. The concentration in Spanish for the Professions is recommended for students with a second major or minor for whom a college-level command of the language significantly enhances opportunities for graduate school and/or employment. This course of study must be approved by the department.

Required courses:

SP 210-211 Intermediate Spanish courses (6 credits maximum: These courses may be waived by oral and/or written examination)
SP 321 Advanced Spanish Composition I* **and/or** SP 322 Advanced Spanish Composition II
SP 323 Advanced Spanish Conversation I**
SP 326 Spanish for the Professions
SP 327 Projects and Issues in Spanish for the Professions
SP 331 Spanish Civilization
SP 332 The Hispanic World Today or SP333 The Hispanic Presence in the United States
Spanish Literature courses (3 credits minimum)
Internship in Spanish (3 credits minimum)
Spanish Electives in Advanced Language, Civilization, Literature, Internship or Special Topics in Spanish for the Professions

There is no second foreign language requirement for this concentration.

**Required of all students unless exempted by the Department of World Languages.*
***This course is a required course for all non-native Spanish speakers.*

Sample Timetable for Completion of Degree: Spanish for the Professions

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
LASC	First-Year Seminar	3
EN 101	English Composition I	3
SP 210	Intermediate Spanish I	3
LASC	Quantitative Reasoning (QR)	3
LASC	Global Perspectives (GP)	3
	Semester Subtotal	**15**

Semester Two		
Course No.	**Course Name**	**Credits**
EN 102	English Composition II	3
LASC	Constitutions	3
SP 211	Intermediate Spanish II	3
LASC	The United States and Its Role in the World (USW)	3
LASC	Natural Systems and Processes (NSP)	3
	Semester Subtotal	**15**

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
SP 321	Advanced Spanish Composition I	3
SP 323	Advanced Spanish Conversation I	3
LASC	Natural Systems and Processes (NSP)	4
SELECT	General Elective	3
LASC	Thought, Language and Culture (TLC)	3
	Semester Subtotal	**16**

Semester Four		
Course No.	**Course Name**	**Credits**
SP 322	Advanced Spanish Composition II	3
LASC	Creative Arts (CA)	3
SELECT	General Elective	3
LASC	Human Behavior and Social Processes (HBS)	3
SELECT	General Elective	3
	Semester Subtotal	**15**

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
SP 326	Spanish for the Professions	3
SP	Either 332 or 333	3
SELECT	General Elective	3
SELECT	General Elective	3
LASC	Individual and Community Well-Being (ICW)	3
	Semester Subtotal	**15**

Semester Six		
Course No.	**Course Name**	**Credits**
SP 327	Projects and Issues in Spanish for the Professions	3
SP 331	Spanish Civilization	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments		

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
SP	300 or 400 Level	3
LASC	Capstone	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Semester Eight		
Course No.	**Course Name**	**Credits**
SP 475	Internship	1-6
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**13-18**
Comments		

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

Requirements for a Minor in Spanish: 18 credits including:
SP 100-299, beginning and intermediate courses (12 credits maximum)
SP 300-499, advanced courses (6 credits minimum)

(Students with advanced knowledge of Spanish should begin at 300-level)

Spanish Courses

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

SP 101 Beginning Spanish I

LASC—Thought, Language and Culture

Basic oral and written proficiency for daily communication; may be taken as a self-contained unit or as a basis for further development. Audio-visual method.
Offered every year. 3 credits.

SP 102 Beginning Spanish II

LASC—Thought, Language and Culture

Prerequisite: SP 101 or equivalent

Continuation of SP 101.
Offered every year. 3 credits.

SP 191 Special Topics in Spanish

An introductory level courses in Spanish on current or specialized topics.
Offered every year. 3 credits.

SP 193 Special Topics in Spanish for First-Year Students

All "193" courses are approved for LASC but may vary by section. See current course listing for specific LASC area approval.

An introductory level course covering topics of special interest to first-year students. Offered only as a First-Year Seminar.
Offered every year. 3 credits.

SP 210 Intermediate Spanish I

LASC—Thought, Language and Culture

Prerequisite: SP 102 or equivalent

Conversational patterns, idioms, dialogues, and special vocabularies for daily life situations.
Offered every year. 3 credits.

SP 211 Intermediate Spanish II

LASC—Thought, Language and Culture

Prerequisite: SP 210 or equivalent

Continuation of SP 210.
Offered every year. 3 credits.

SP 321 Advanced Spanish Composition I

LASC—Thought, Language and Culture; Writing Across the Curriculum

Prerequisite: Two SP 200 level courses, EN 102

Facility in prose reading and writing; study of style of selected authors; variety of expression through word discrimination, and advanced grammatical structures.
Offered every year. 3 credits.

SP 322 Advanced Spanish Composition II

LASC—Thought, Language and Culture

Prerequisite: SP 321 or equivalent

Continuation of SP 321.
Offered every year. 3 credits.

SP 323 Advanced Spanish Conversation I

LASC—Thought, Language and Culture

Prerequisite: Two SP 200 level courses.

Intensive conversational practice for improving intonation, pronunciation, fluency, review of language usage. This course is for non-native Spanish speakers only.
Offered every year. 3 credits.

SP 324 Advanced Spanish Conversation II

LASC—Thought, Language and Culture

Prerequisite: SP 323 or equivalent.

Continuation of SP 323.
Offered every year. 3 credits.

SP 326 Spanish for the Professions

LASC—Global Perspectives; Thought, Language and Culture

Prerequisite: SP 321, SP 323 or instructor's approval.

Intensive practice with language and documents used in private and public sectors including business, medicine, communication, education and social services.
Offered every year. 3 credits.

SP 327 Projects and Issues in Spanish for the Professions

Prerequisite: SP 321, SP 323, SP 324 or instructor's approval.

Close study of selected projects and bicultural issues for Spanish professionals.
Offered every year. 3 credits.

SP 331 Spanish Civilization

Prerequisite: Two SP 200 level courses

A historical survey of Spanish social, cultural, and political life. Conducted in Spanish.
Offered every year. 3 credits.

SP 332 The Hispanic World Today

LASC—Global Perspectives; Diversity Across the Curriculum

Prerequisite: Two SP 200 level courses

Social, economic and political institutions; value systems and customs. Conducted in Spanish.
Offered every 2 years. 3 credits.

SP 333 The Hispanic Presence in the United States

Prerequisite: Two SP 200 level courses

Sociocultural study of Hispanics in the United States, with a focus on major contemporary issues. Conducted in Spanish.
Offered every 2 years. 3 credits.

SP 341 Readings in Spanish Literature

Prerequisite: SP321, SP 323, SP 324 or instructor's approval.

Selected masterpieces from Middle Ages to present; social, cultural, and stylistic features of different periods. Recommended as a first course in Spanish literature.
Offered every 3 years. 3 credits.

SP 342 Introduction to Latin American Literature I

Prerequisite: SP 321, SP 323, SP 324 or instructor's approval.

Study of the literature produced in Latin America from the pre-Columbian era until the first wars of independence.
Offered every 3 years. 3 credits

SP 343 Poetry and Theatre of Spain's Golden Age

Prerequisite: SP 321, SP 323, SP 324 or instructor's approval.

Study of the poetry and drama created during the Renaissance and Baroque periods, known as the Golden Age of Spanish letters.
Offered every 3 years. 3 credits

SP 348 Contemporary Spanish Literature

Prerequisite: SP 321, SP 323, SP 324 or instructor's approval.

Literary works from the generation of 1898 to the present.
Offered every 3 years. 3 credits.

SP 349 Spanish-American Literature

Prerequisite: SP 321, SP 323, SP 324 or instructor's approval.

Representative works from South and Central American authors from the colonial period to the present.
Offered every 3 years. 3 credits.

SP/ED 355 Effective Teaching of a Foreign Language

Prerequisite: SP 321, SP 323, SP 324, ED 251, 270, 351 or 352 or instructor's approval.

Examines and evaluates effective teaching techniques and strategies as well as second-language acquisition theory for middle/secondary foreign language classrooms.
Offered every 3 years. 3 credits

SP 390 Spanish for Native Speakers

This course will explore contemporary issues as a basis for further development of the Spanish language skills of native speakers.
Offered every 3 years. 3 credits

SP 401 Advanced Study: Special Topics

Prerequisite: For advanced students

Special topics in language, literature, civilization or field work of mutual interest to student and instructor.
Offered every year. 3 credits.

SP 402 Independent Study in Spanish

Prerequisite: Consent of instructor

Study of a special topic. Both content and eligibility are subject to departmental guidelines and approval.
Offered every year. 1-6 credits.

SP 403 Teaching Assistantship in Spanish

Prerequisite: Consent of instructor

Teaching Assistants in Spanish will regularly attend the beginning or intermediate-level Language courses to which they are assigned to assist the professor.
Offered every year. 3 credits.

SP 475 Internship in Spanish

Prerequisite: Consent of instructor and department

Provides majors practical experience in areas where their speaking, reading, and writing skills may be applied.
Offered every year. 3 credits.

Note: *Courses in other foreign languages such as German, Italian, Latin, Russian, Chinese and Hebrew are offered when demand warrants and staffing permits.*

Theatre
Department of Visual and Performing Arts

Faculty

John H. Hood, Professor (2004)
B.F.A., Arizona State University; M.F.A., University of Minnesota

Sam O'Connell, Assistant Professor (2010)
B.A., M.A., Washington University; Ph.D., Northwestern University

Adam Zahler, Associate Professor (2007), Department Chair
B.A., University of Vermont; M.F.A., University of Virginia

The theatre program offers courses in theatre history, theatre for young audiences, design and performance. Mainstage productions are produced on a regular basis. Advanced students are encouraged to stage their own laboratory shows and also to intern with local theatre companies. The theatre faculty teaches interdisciplinary courses with faculty from Art and Music.

Requirements for a Major
The newly instituted Interdisciplinary Visual and Performing Arts Major offers concentrations in Art, Music, or Theatre. *See Visual and Performing Arts Department.*

Requirements for Minor in Theatre: 18 credits comprised of the following courses: TH 191 Introduction to the Theatre; TH 245 Acting I; TH 275 Introduction to Stagecraft and Design; and TH 321 Rehearsal and Performance, and two other 3 credit-hour theatre courses.

Theatre Courses

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

TH 135 Oral Interpretation of Literature

LASC—Creative Arts

Techniques of reading aloud and staging non-dramatic literature; e.g., short stories, poetry, etc. The student analyzes selections and then performs them in class.
Offered every year. 3 credits.

TH 191 Introduction to Theatre

LASC—Creative Arts

An overview of live performance, with the emphasis on audience appreciation. Performance arts and crafts are examined.
Offered every year. 3 credits.

TH 193 Special Topics in Theatre for First-Year Students

All "193" courses are approved for LASC but may vary by section. See current course listing for specific LASC area approval.

Introductory level course covering topics of special interest to first-year students. Offered only as a First-Year Seminar.
Offered every year. 3 credits.

TH 226 Script Analysis

LASC—Creative Arts; Thought, Language and Culture

Prerequisite: EN 102
Script analysis for theatre artists. How to take a script from initial reading to production
Offered every year. 3 credits.

TH 236 History of Theatre I

LASC—Creative Arts; Thought, Language and Culture

Survey of world theatre from Golden Age of Athens to Restoration England, including brief overview of Asian theatre.
Offered every year. 3 credits.

TH 237 History of Theatre II

LASC—Global Perspectives; Thought, Language and Culture

Survey of western theatre from eighteenth to twentieth century, with reference to roots and developments in other world cultures.
Offered every year. 3 credits.

TH 245 Acting I

LASC—Creative Arts

Introductory acting theory and practice. Students present brief monologues and scenes on stage.
Offered every year. 3 credits.

TH 246 Voice and Movement

Prerequisite: TH 191, TH 245

Training to strengthen the natural voice, develop diction, learn period movement and develop spatial awareness on and off stage.
Offered every year. 3 credits.

TH 270 History of American Entertainment I

LASC—Creative Arts; United States And It's Role In The World

An historical survey of American popular entertainments from the Colonial period through the end of the nineteenth century.
Offered every 2 years. 3 credits.

TH 271 History of American Entertainment II

LASC—Creative Arts; United States And It's Role In The World

An historical survey of American popular entertainments from the rise of film and radio through the great American musicals.
Offered every 2 years. 3 credits.

TH 272 History of Costume

LASC—Creative Arts

The history of clothing from ancient times to the present. Lecture/discussion and a research project on a chosen era or culture.
Offered every two years. 3 credits.

TH 275 Introduction to Stagecraft and Design

LASC—Creative Arts

Fundamentals of theatre production including scenic, costume and lighting, focused on the crafts and technology behind the scenes. 30-hour practicum required.
Offered every year. 3 credits.

TH 290 Theatre for Young Audiences

Organization of children's theatre, script selection, visual design, rehearsal and performance. Investigation of creative drama as a teaching tool in elementary education.
Offered every year. 3 credits.

TH 292 Creative Dramatics

Principles and techniques of leading improvised dramatic activities with children and adults. Involves sensory awareness, imagination, movement, and story dramatizations.
Offered every year. 3 credits.

TH 321 Rehearsal and Performance

LASC—Creative Arts

Public performance of full-length stage productions under faculty direction. Students assume performance and/or production "roles" as described in departmental manual.
Offered every year. 3 credits.

TH 335 History of American Theatre

LASC—Creative Arts; United States and Its Role in the World

The history of American theatre from its beginnings to the present day.
Offered every two years. 3 credits.

TH 345 Acting II

Prerequisite: TH 191, TH 245

Further development of acting skills with emphasis on stage–acting technique.
Offered every year. 3 credits.

TH 348 Stage Combat

LASC—Creative Arts, Individual and Community Well Being

Prerequisite: TH 191

Training in armed and unarmed combat for the stage. Emphasis will be placed on safety and choreography of stage fighting.
Offered every year. 3 credits.

TH 350 Playwrighting

Prerequisite: EN 102

Writing for the stage, both theory and practical exercises. Students complete a one-act play by the end of the course.
Offered once a year. 3 credits.

TH 355 Theatre Practicum

Practical work on Theatre production in various areas including acting, design, stage management, construction, etc.
Offered every year. 1 credit

TH 360 Scenic Design for Theatre

LASC—Creative Arts

Scenic Design for Theatre will include research, drafting, drawing and rendering, model building, and presentation of scenic designs for assigned plays.
Offered every year. 3 credits.

TH 370 Costume Design for Theatre

LASC—Creative Arts

Conceptualization, collaboration, research, figure drawing and rendering, swatching, organization, and presentation of costume designs for assigned plays.
Offered every year. 3 credits.

TH 380 Directing

Prerequisite: TH 245, TH 191

Script selection, casting, scene analysis, blocking, rehearsal techniques, and other concerns of the theatrical director. Students direct short scenes and short plays.
Offered every 2 years. 3 credits.

TH 390 Lighting Design for Theatre

LASC—Creative Arts

Study and exercises in conceptualization, previsualization, collaboration, design presentation, qualities and functions of light, drafting the light plot, and control of theatrical lighting.

Offered every year. 3 credits.

TH 399 Special Topics in Theatre

Will include study of topics on an as needed basis, (i.e., a course in conjunction with a producition, or a course for advanced students who wish to pursue further study.
Offered at the discretion of the department. 3 credits.

Urban Studies
Department of Urban Studies

Faculty

Madeline Otis Campbell, Assistant Professor (2012)
B.A., M.A., Brown University; M.A., Ph.D., University of California, Davis

Thomas E. Conroy, Assistant Professor (2010), Department Chair
B.A., Salem State University; M.A., Ph.D., University of Massachusetts Amherst

Anne W. Gathuo, Associate Professor (2005)
B.Ed., Kenyatta University; M.B.A., University of Nairobi;
Grad Certificate, M.S., Ph.D., University of Massachusetts Boston

Timothy E. Murphy, Visiting Assistant Professor (2013)
B.A., Indiana; M.A., Ph.D., University of California at Davis

Maureen E. Power, Professor (1975)
A.B., Emmanuel College; M.S.W., Ph.D., Brandeis University

The goal of the Department of Urban Studies is to foster an understanding of the complex challenges that face an increasingly urban and metropolitan world. The field of Urban Studies uses an interdisciplinary approach to understand metropolitan life. It immerses students in an academically rigorous and personally challenging course of study that helps them discover who they are, and how they can become change agents in this global society. The Urban Studies Department cultivates the development of critical thinking skills necessary to function effectively in today's competitive world. Department graduates enjoy outstanding careers in a wide variety of occupations, such as, public administration, policy development, non-profit management, urban planning, business, law, human services, health care management, housing management, gerontology and social work.

Requirements for the Major: 36 credits. All Urban Studies majors are required to take the following courses:

UR 101	Introduction to Urban Studies
UR 212	American Metropolitan Evolution **or**
UR 301	Cities and Suburbs
UR 213	Human Identity and the Urban Environment
UR 320	Human Needs and Social Policy
UR 401	Research Seminar in Urban Studies/Capstone

Students are encouraged to take community based experiential courses, including practicum and internship. These course credits may not exceed a total of 12, three of which may count towards the major. Students may take the internship after completing 18 credits in the major. The practicum can be taken at any time, upon permission of department.

Sample Timetable for Completion of Degree: Urban Studies

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
EN 101	English Composition I	3
LASC	First-Year Seminar	3
UR 101	Introduction to Urban Studies	3
LASC	Quantitative Reasoning (QR)	3
LASC	Constitutions	3
	Semester Subtotal	**15**

Semester Two		
Course No.	**Course Name**	**Credits**
EN 102	English Composition II	3
UR	Any 100 or 200 level course in major	3
LASC	Natural Systems and Processes (NSP)	4
LASC	Thought, Language and Culture (TLC)	3
LASC	Individual and Community Well-Being (ICW)	3
	Semester Subtotal	**16**
Comments		

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
UR	Major elective approved by advisor	3
LASC	Natural Systems and Processes (NSP)	3
LASC	The United States and Its Role in the World (USW)	3
LASC	Creative Arts (CA)	3
LASC	Global Perspectives (GP)	3
	Semester Subtotal	**15**

Semester Four		
Course No.	**Course Name**	**Credits**
UR 213	Human Identity	3
UR 212	American Metropolitan Evolution	3
LASC	Human Behavior and Social Processes (HBS)	3
LASC	Global Perspectives (GP)	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments		

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
UR 320	Human Needs and Social Policy	3
UR	Any 200 or 300 Level Course	3
LASC	Human Behavior and Social Processes (HBS)	3
LASC	Thought, Language and Culture (TLC)	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Semester Six		
Course No.	**Course Name**	**Credits**
LASC	Creeative Arts (CA)	3
UR	Major elective approved by advisor	3
UR	Major elective approved by advisor	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**
Comments		

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
LASC/UR 401	Research Seminar/Capstone	3
UR	Course recommended by Advisor	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Semester Eight		
Course No.	**Course Name**	**Credits**
UR 450	Internship in Major	3-12
UR 451	Internship Seminar	1
UR	Taken if short of 36 credits	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**13-18**
Comments		

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

Requirements for a major in Urban Studies, Concentration in Public Administration and Planning: The required courses for the major, 3 credits in experiential learning (internship or practicum), and 3 of the following:

UR 201	Analysis of Urban Systems
UR 310	Power, Politics, and Decision-Making in Urban Communities
UR 311	Community Politics and Policies
UR 340	Urban Housing Dilemma
UR 360	Environmental Systems and Public Policy
UR 361	Public Policy and Environmental Issues
UR 370	Structure and Function of Urban Organizations
UR 380	Public Policy and Cultural Diversity
UR 430	Seminar in Current Urban Problems

Requirements for a Major in Urban Studies, Concentration in Social Work and Social Policy: The required courses for the major, 3 credits in experiential learning (internship or practicum), and 3 of the following:

UR 305	Group Conflict in the Urban Community
UR 306	Interviewing and Counseling Techniques
UR 321	Social Work in Urban Society
UR 325	Social Casework in the Urban Setting
UR 341	Urban Health and Social Policy
UR 350	Urban Youth in American Society
UR 351	Public Policy and Youth Services
UR 380	Public Policy and Cultural Diversity

Requirements for a major in Urban Studies, Concentration in Intergenerational and Community Service: The required courses for the major, 3 credits in experiential learning (internship or practicum), and 3 of the following:

UR 202	Aging and Metropolitan Society
UR 216	Women and Aging
UR 321	Social Work in Urban Society
UR 344	A Society for All Ages
UR 350	Urban Youth in American Society

UR 351	Public Policy and Youth Services
UR 352	Public Policy for an Aging Society

Requirements for a Major in Urban Studies with a concentration in Gerontology: the required courses for the major

PS 322	Psychology of Aging

and 3 of the following:

UR 202	Aging in Metropolitan Society
UR 216	Women and Aging in the Urban Environment
UR 341	Urban Health and Social Policy
UR 352	Policy Planning for an Aging Society
	Aging Policy for a Third Age ***(offered as part of the Consortium Gerontology Studies Program)***

Requirements for a Minor: 18 credits including the following:

UR 101	Introduction to Urban Studies
UR 212	American Metropolitan Evolution
UR 213	Human Identity and the Urban Environment

Three additional UR 300-level courses

Requirements for a Minor in Intergenerational Studies and Community Service: Choose 6 of the following for 18 credits:

UR 101	Introduction to Urban Studies
UR 320	Human Needs and Social Policy
UR 344	A Society for All Ages: Intergenerational Community Service
UR 400	Practicum in Urban Studies
UR 216	Women and Aging or
UR 202	Aging and Metropolitan Society
UR 350	Urban Youth in American Society or
UR 351	Public Policy and Youth Services

Requirements for a five-year Bachelor of Science in Urban Studies / Master of Science in Non-Profit Management:

Students who have completed 90 undergraduate credits may apply for admission into the five-year BS/MS program if they have an overall GPA of not less than 3.0 and an urban studies major GPA of not less than 3.25. To be eligible, students must complete an undergraduate internship, independent study or capstone project that incorporates work with a community-based organization as part of their undergraduate work. Students must meet all the other requirements for admission to the Masters in Non-Profit Management. However, the standardized test scores (GRE, GMAT and MAT) requirement is waived for students with an overall GPA of 3.25 or higher.

In order to complete the joint degree, in the final year of their Bachelor's work, students take three graduate-level courses (9-11 credits) which count toward both their undergraduate credit requirements and also toward requirements for the masters degree. Students must also take at least one summer class between the Spring of their BS graduation and the Fall in which they embark on fulltime graduate studies. This would allow students to complete course requirements for the Bachelor's and Master's degrees in five years (60 months).

Urban Studies Courses (Undergraduate)

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

UR 101 Introduction to Urban Studies

LASC—Human Behavior and Social Processes; United States and Its Role in the World

A broad contextual overview of urban life that examines the relationship of people to their environment from an interdisciplinary perspective.
Offered every year. 3 credits.

UR 103 Introduction to Women's Studies

LASC— Human Behavior and Social Processes; Individual and Community Well-Being, Diversity Across the Curriculum

This course uses a variety of academic disciplines to study the situation of women around the world.
Offered every 2 years. 3 credits.

UR 191 Special Topics in Urban Studies

This introductory level course will cover topics in Urban Studies which are of special interest to first-year students.
Offered every year. 3 credits.

UR 193 Special Topics in Urban Studies for First-Year Students

All "193" courses are approved for LASC but may vary by section. See current course listing for specific LASC area approval.

Introductory level course covering topics of special interest to first-year students. Offered only as a First-Year Seminar.
Offered every year. 3 credits.

UR 201 Analysis of Urban Systems

LASC—Human Behavior and Social Processes

Analysis of activities, programs, and policies designed to sustain and enhance the livability of individuals in an urban environment.
Offered every 2 years. 3 credits.

UR 202 Aging in Metropolitan Society

An introduction to gerontology stressing the social, economic and political aspects of aging in the urban environment.
Offered every 2 years. 3 credits.

UR 212 American Metropolitan Evolution

LASC—United States and Its Role in the World; Writing Across the Curriculum

Prerequisite: UR 101, EN 102

Development of metropolitan America from a multi-disciplinary approach with emphasis upon dynamics of urban growth, internal development of cities, immigrations, socioeconomic stratification, metropolitanization and problems deriving from growth.
Offered every year. 3 credits.

UR 213 Human Identity and the Urban Environment

Prerequisite: UR 101

Study of factors affecting identity in contemporary urban settings including race, ethnicity, class, age, and sex categories and roles.
Offered every year. 3 credits.

UR 215 Information Management in Urban Studies

Prerequisite: UR 101

Designed to familiarize students with various methods of managing, creating and reporting information.
Offered every 3 years. 3 credits.

UR 216 Women and Aging in the Urban Environment

LASC—Human Behavior and Social Processes; Writing Across the Curriculum
Prerequisite: EN 102
Investigation of the Aging process for women in urban society, focusing on their great longevity, lower income status, and major caregiving role.
Offered every 2 years. 3 credits.

UR 230 Technology, Public Policy, and Urban Society

LASC—Human Behavior and Social Processes; Writing Across the Curriculum

Prerequisite: EN 102

Examination of high-technology and its impact on urban society; privacy, ethics, intellectual, property rights, sense of community, and access to information and services.

Offered every year. 3 credits.

UR 240 Introduction to Qualitative Research Methods for the Social Sciences

LASC—Human Behavior and Social Processes; Writing Across the Curriculum

Prerequisite: EN 102

This introductory course provides and overview of the research process, and introduces students to commonly used qualitative methods in the social sciences.

Offered every year. 3 credits.

UR 245 Introduction to Survey Research Method for Social Science

LASC—Human Behavior and Social Processes

This introductory course provides an overview of the research process and introduces students to survey research methodology.

Offered every year. 3 credits.

UR 250 Introduction to Urban Planning

LASC—Individual and Community Well-Being

An exploration of planning theory, dynamics, and practice, and how they form the modern urban planning agenda.

Offered every 2 years. 3 credits.

UR 290 Gender and the City

LASC—Global Perspectives; Human Behavior and Social Processes; Writing Across the Curriculum

Prerequisite: EN 102

Exploration of ways in which gender, both male and female, structures responses of individuals to urban life and spaces.

Offered every 2 years. 3 credits.

UR 301 Cities and Suburbs

Prerequisite: UR 101

Multidisciplinary study of city-suburban growth patterns and problems both of the past, and those that hamper metropolitan cooperation and affect the quality of life of both city and suburban residents and businesses.

Offered every 2 years. 3 credits.

UR 305 Group Conflict in the Urban Community

Prerequisite: UR 101

Study of conflict and its resolution in contemporary urban settings. Personal, small group, and societal strategies for conflict resolution will be explored.

Offered every 2 years. 3 credits.

UR 306 Interviewing and Counseling Techniques

Prerequisite: Consent of instructor

Investigation of skills and process of interviewing and counseling with emphasis upon theory and practice, participant exercises, and development of helping skills and effective counseling relationships.

Offered every 3 years. 3 credits.

UR 310 Power, Politics, and Decision-Making in Urban Communities

Prerequisite: UR 101 or permission of instructor

Exploration from multi-disciplinary approach of social power and its relation to decision-making in urban communities. Emphasis on theories of power, understanding research methodologies, and policy implications.

Offered every 3 years. 3 credits.

UR 311 Urban Politics and Policies

LASC—Human Behavior and Social Processes

Prerequisite: UR 101 or permission of instructor

Political behavior and perceptions in cities and towns from a multidisciplinary perspective with emphasis on how policy is initiated, developed and implemented in various governmental forms.
Offered every 3 years. 3 credits.

UR 320 Human Needs and Social Policy

LASC—Individual and Community Well-Being

Analysis of human needs as they change over a life span; why needs go unmet, and the role of social policy in meeting needs.
Offered every year. 3 credits.

UR 321 Social Work in the Urban Society

Prerequisite: UR 101

Overview of approaches used by social work professionals in assessing and meeting needs, including casework, community organization and planning.
Offered every 2 years. 3 credits.

UR 325 Social Casework in the Urban Setting

Prerequisite: UR 101

Introduction to various social work approaches—client-centered, task-centered, Gestalt, Carhuff and reality therapy; role playing and counseling simulations utilized.
Offered every 2 years. 3 credits.

UR 330 Justice in the Urban Society

Prerequisite: UR 101

Theoretical perspectives on the mission of the criminal justice system and the daily operation of its sub- components.
Offered every 3 years. 3 credits.

UR 331 Crime and the City

LASC—Human Behavior and Social Processes

Prerequisite: UR 101

Investigation of crime in contemporary urban society and the social, legal, economic, and cultural strategies for dealing with crime and deviance.
Offered every 2 years. 3 credits.

UR 340 Urban Housing Dilemma

Prerequisite: UR 101

Analysis of the factors that shape the nature, location, and supply of urban housing with special focus on federal, state and local policies.
Offered every 3 years. 3 credits.

UR 341 Urban Health and Social Policy

Prerequisite: UR 101

Analysis of urban health care, with special emphasis on the role of social policy in ensuring health care for all, particularly children and elders.
Offered every 2 years. 3 credits.

UR 344 A Society for All Ages: Intergenerational Community Service

Exploration of the necessary role of community service in civic life with emphasis on harnessing the power of intergenerational programs to address social concerns.
Offered every year. 3 credits.

UR 350 Urban Youth in American Society

Prerequisite: UR 101

Role and problems of youth in urban societies viewed from a variety of social science perspectives with utilization of contemporary music and literature.
Offered every 2 years. 3 credits.

UR 351 Public Policy and Youth Services

Prerequisite: UR 101

Role of theory, attitudes, and public opinion in the formation of policies concerning delinquency with exploration of current practices and innovative strategies.
Offered every 2 years. 3 credits.

UR 352 Policy Planning for an Aging Society

Prerequisite: Consent of instructor

Analysis of current social policies in regard to elders and exploration of ways in which policies need to be altered to meet growing elder needs.
Offered every 3 years. 3 credits.

UR 353 Aging in a Global Society

LASC—Global Perspectives; Diversity Across the Curriculum

Explores the ramifications of unrelenting Global Aging, focusing on the questions, what are old people for and the connections across generations.
Offered every 2 years. 3 credits.

UR 360 Environmental Systems and Public Policy

Prerequisite: UR 101 or permission of instructor

Examination of urban ecosystems, focusing on land uses designed to effectively utilize water, open space and other natural resources.
Offered every 2 years. 3 credits.

UR 361 Public Policy and Environmental Issues

Prerequisite: UR 101 or permission of instructor

Investigation of the factors that determine the formation of public policy on the environment with consideration of the roles played by state and federal regulatory agencies.
Offered every 2 years. 3 credits.

UR 370 Leadership in Nonprofit and Public Organizations

LASC—Human Behavior and Social Processes

Prerequisite UR 101

Advanced leadership seminar for students interested in pursuing management careers in public and non-profit organizations.

Offered every 3 years

UR 380 Public Policy and Cultural Diversity

LASC—Human Behavior and Social Processes; United States and Its Role in the World

Prerequisite: UR 101

This course will examine contemporary policy issues and problems deriving from cultural diversity. These will include areas such as immigration, population, demographics, affirmative action, public assistance, integration, separatism, political correctness, gender equity, and the role of organized religion in contemporary politics.
Offered every 2 years. 3 credits.

UR 401 Research Seminar in Urban Studies/Capstone

LASC - Major Capstone

Prerequisite: UR 101

Research skills for urban-based projects including techniques in gathering, analyzing, and reporting data and various forms of field research.
Offered every year. 3 credits.

UR 410 Assigned Research in Urban Affairs

Prerequisite: UR 101

Individual or small group directed research into selected problems and issues in urban affairs.
Offered every 3 years. 3 credits.

UR 411 Assigned Readings in Urban Affairs

Prerequisite: UR 101

Directed readings for students interested in special topics related to their academic program of study.
Offered every 2 years. 3 credits.

UR 421 Selected Topics in Urban Studies

Prerequisite: UR 101

In-depth examination of topical issues challenging the intellectual and creative interests of advanced students in urban studies.
Offered every year. 3 credits.

UR 422 Selected Topics in Gerontology

Prerequisite: Consent of instructor

In-depth examination of topical issues in gerontology which afford the advanced student the opportunity to pursue gerontological research.
Offered every 2 years. 3 credits.

UR 430 Seminar in Current Urban Problems

Prerequisite: UR 101

Individual and group investigation and research of selected and current urban problems.
Offered every 2 years. 3 credits.

UR 432 Demographic Research Seminar

Prerequisite: UR 101

Small group or individual research using various sources in gathering, interpreting, reporting and projecting policy implications of demographic data.
Offered every 3 years. 3 credits.

UR 440 Practicum in Urban Studies

Prerequisite: UR 101

Directed experiential study for advanced students.
Offered every year. Variable credit.

UR 450 Internship in Urban Studies

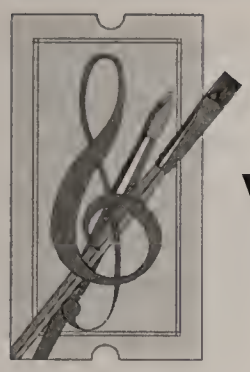
Prerequisites: Completion of 21 credits in Urban Studies

Supervised and intensive semester-long experience in community agencies.
Offered every year. 3-12 credits.

UR 451 Internship Seminar

Prerequisites: Completion of 21 Urban Studies credits or permission of instructor

Exploration of the challenges that emerge as 25 students engage in the professional world (recommended to be taken in conjunction with UR 450 Internship in Urban Studies).
Offered every year. 1 credit.



Visual and Performing Arts, Interdisciplinary

Department of Visual and Performing Arts

Faculty

Michael C. Hachey, Professor (1993)
B.F.A., M.F.A., Massachusetts College of Art

John H. Hood, Professor (2004)
B.F.A., Arizona State University; M.F.A., University of Minnesota

Kyle D. Martin, Professor (1998)
B.M., Hardin-Simmons University; M.M., D.M.A., Eastman School of Music

Christie B. Nigro, Professor (1989)
B.M., Syracuse University; M.M., Yale University; Ph.D., University of Massachusetts

Sam O'Connell, Assistant Professor (2010)
B.A., M.A., Washington University; Ph.D., Northwestern University

Stacey Parker, Associate Professor (2007)
B.F.A., Alfred University; M.F.A., Rochester Institute of Technology

Robert Sahagian, Professor (1968)
B.M., New England Conservatory of Music; M.M., Ph.D., Michigan State University

Amaryllis Siniossoglou, Professor (2005)
PEP, Royal College of Art, London, England; M.F.A., University of Massachusetts, Amherst; Ecole Nationale Superieure Des Beaux-Arts, Paris, France; Diplome Superieur d' Art Plastique; School of Art, Athens, Greece; Drawing and Painting School, Certificate

Catherine Wilcox-Titus, Associate Professor (2004)
B.A., University of Toronto; M.S., Simmonds College; M.A., Ph.D., Boston University

Adam Zahler, Associate Professor (2007), Department Chair
B.A., University of Vermont; M.F.A., University of Virginia

The visual and performing arts hold an essential place in society, promoting cultural and economic growth, and fostering creative expression, community experience, and entertainment in a wide variety of media. The VPA Major provides students with coursework in Art, Music, and Theatre, serving as a foundation for interdisciplinary work in the arts. Core courses promote critical thinking in all three disciplines, and prepare students intellectually and creatively for work on their capstone/senior thesis projects. Students choose a concentration in Art, Music, or Theatre, taking courses that provide knowledge, techniques, and models of thinking designed to enhance the creative process. Studies will be applied to the production, performance, and critical study of artistic work.

Concentration in Art

The Art concentration offers a program in the creation of visual art augmented by studies in art history. Courses in design, drawing, painting, printmaking, sculpture, digital arts, and integrated media provide the technical skills and concepts that form the basis for expression in visual art. Existing within the interdisciplinary major, the Art concentration presents extensive involvement in studio art while encouraging creative thinking and artistic production that are informed by and sometimes created with the performing arts of music and theatre.

Concentration in Music

The Music concentration offers a program of study in performance skills, music theory, and music history. Students will develop strong musical literacy, as well as expertise in a particular instrument or voice. By a thorough study of performance skills, music theory, and music history, graduates will be equipped to work as professional musicians or enter graduate programs in various areas of music. While a solid grounding in traditional performance will be stressed, the interdisciplinary nature of the major will encourage activity with artists, actors, directors, poets, and those in other creative fields.

Concentration in Theatre

The Theatre concentration provides a basis in theatre arts and technical skills, preparing students for graduate level study or entry level work in theatre and related fields. Students study acting, design, stagecraft and directing, applying those skills to departmental and self-generated productions. A solid grounding in theatre arts is emphasized, and students are encouraged to collaborate with those in the visual arts is music, and to explore their own impulses and talents in diverse artistic disciplines.

Requirements for a Major

Minimum requirement for the major is completion of a three course (9 credit) Foundation curriculum, a three course (9 credit) Interdisciplinary Core, and 27 credits in one of three concentrations. Students will declare concentration in Art, Music, or Theatre.

Interdisciplinary Foundation Courses

Foundation in Art	3 credits
AR 113 World Art Survey I	
or	
AR 100 Cross Media Studio	
Foundation in Music	3 credits
MU 100 Music Fundamentals	
or	
MU 101 Fundamentals of Music and Aural Skills for music concentrators	
or	
MU 102 Applied Music	
or	
MU 115 Music Appreciation	
Foundation in Theatre	3 credits
TH191 Introduction to Theatre	

Interdisciplinary Core Courses

VP 200 Critical Thinking in the Arts	3 credits
VP 300 Interdisciplinary Arts Seminar	3 credits
VP 400 Arts Capstone/ Senior Thesis	3 credits
Foundation and Core Total	**18 credits**

Requirements for the Concentration in Art

In addition to the three Foundation courses and three Interdisciplinary Core courses students will complete nine courses (27 credits) including:

AR 100 Cross Media Studio	3 credits
or	
AR 112 World Art Survey I	3 credits
AR 140 Drawing I	3 credits
AR 117 Visual Design: 2-Dimensions	3 credits
AR 122 Visual Design: 3-Dimensions	3 credits
AR 113 World Art Survey II	3 credits
AR 225 Art Since Mid-Century	3 credits
Additional AR courses*	9 credits
Concentration Total	**27 credits**
Major Total	**45 credits**

Requirements for the Concentration in Music

In addition to the three Foundation courses and three Interdisciplinary Core courses students will complete 18 credits of courses, lessons, and ensemble (or 17 credits if Class Piano is taken) including:

MU 101 Fundamentals of Music & Aural Skills	3 credits
MU 205 Harmony I	3 credits
MU 281 Music History I	3 credits
MU 282 Music History II	3 credits
MU 102-202-302-402 4Private lessons	4 credits
(four semesters @ 1 credit each)	
Ensemble	2 credits
(credits earned after completion of four semesters of ensemble participation)	
MU 190 Class piano (unless proficient)	1 credit
Additional MU courses*	8 or 9 credits

Or, if MU101 Fundamentals of Music & Aural Skills is taken as Interdisciplinary Foundation

MU 205 Harmony I	3 credits
MU 210 Harmony II	3 credits
MU 281 Music History I	3 credits
MU 282 Music History II	3 credits
MU 102-202-302-402 4Private lessons	4 credits
(four semesters @ 1 credit each)	
Ensemble	2 credits
(credits earned after completion of four semesters of ensemble participation)	
MU 190 Class Piano (unless proficient)	1 credit
Additional MU courses*	8 or 9 credits
Concentration Total	**27 credits**
Major Total	**45 credits**

Requirements for the Concentration in Theatre

In addition to the three Foundation courses and three Interdisciplinary Core courses students will complete nine courses (27 credits) including:

TH 275 Introduction to Stagecraft	3 credits
TH 245 Acting I	3 credits
TH 355 Theatre Practicum	3 credits
(3 at one credit each)	
and one of the following:	
TH 360 Scene Design for Theatre	3 credits
TH 370 Costume Design for Theatre	3 credits
TH 390 Lighting Design for Theatre	3 credits
Additional TH courses*	15 credits
Concentration Total	**27 credits**
Major Total	**45 credits**

**With advisement, electives within a concentration may be selected from the other disciplines. For description of required and elective courses see entries in individual disciplines of Art, Music, and Theatre.*

Requirements for Double Major in Elementary Education

Students who double major in elementary education may concentrate in Art, Music, Theatre or Visual and Performing Arts. They will fulfill the Interdisciplinary Foundation and Core requirements plus requirements in their concentration for a total of 36 credits.

Emphasis in Art for Students who double major in Elementary Education

Interdisciplinary Foundation and Core requirements	18 credits
plus	
AR 112 or 113 or 225 World Art Survey I	3 credits
or	
World Art Survey II	3 credits
or	
Art Since Mid-Century	3 credits
AR 140 Drawing I	3 credits
AR 117 Visual Design: 2-D	3 credits
AR 122 Visual Design: 3-D	3 credits
AR 260 Visual Arts in the Schools	3 credits
Electives in Art	3 credits
Concentration Total	**18 Credits**
Major Total	**36 Credits**

Emphasis in Music for Students who double major in Elementary Education

Interdisciplinary Foundation and Core requirements	18 credits
plus	
MU 101 Fundamentals of Music and Aural Skills (unless taken for foundation)	3 credits
or	
MU 205 Harmony I	3 credits
MU 115 Music Appreciation (unless taken for Foundation)	3 credits
or	
MU 281 Music History I	3 credits
or	
MU 282 Music History II	3 credits
MU 190 Class Piano and MU 195 Class Guitar and participation in 2 Ensembles at .5 credits each	3 credits
MU 237 Music in Elementary School	3 credits
MU 102/103, Private Lessons (unless MU 190 And MU 195 taken) and Participation in 2 Ensembles	3 credits
Electives in Music	3 credits
Concentration Total	**18 Credits**
Major Total	**36 Credits**

Emphasis in Theatre for Students who double major in Elementary Education

TH 245 Acting I	3 credits
TH 275 Introduction to Stagecraft	3 credits
TH 290 Theatre for Young Audiences	3 credits
TH 292 Creative Dramatics	3 credits
TH 321 Rehearsal and Performance	3 credits
Electives in Theatre	6 credits
Concentration Total	**18 Credits**
Major Total	**36 Credits**

Emphasis in Visual and Performing Arts for Students who double major in Elementary Education

AR 260 Visual Arts in the Schools	3 credits
MU 237 Music in Elementary School	3 credits
TH 290 Theatre for Young Audiences	3 credits
TH 292 Creative Dramatics	3 credits
Electives in Art, Music, Theatre, and Visual and Performing Arts	6 credits
Concentration Total	**18 Credits**
Major Total	**36 Credits**

Sample Timetable for Completion of Degree: Visual and Performing Arts, Interdisciplinary

YEAR ONE

Semester One		
Course No.	**Course Name**	**Credits**
LASC	First-Year Seminar	3
EN 101	English Composition I	3
AR	Foundation Choice, Art	3
TH 191	Introduction to Theatre	3
LASC	Constitutions	3
	Semester Subtotal	**15**

Semester Two		
Course No.	**Course Name**	**Credits**
EN 102	English Composition II	3
MU	Foundation Choice, Music	3
AR, MU, or TH	Concentration Requirement	3
LASC	Creative Arts (CA)	3
LASC	Thought, Language and Culture (TLC)	3
	Semester Subtotal	**15**

YEAR TWO

Semester Three		
Course No.	**Course Name**	**Credits**
VP 200	Critical Thinking in the Arts	3
AR, MU, or TH	Concentration Elective	3
LASC	Natural Systems and Processes (NSP)	4
LASC	The United States and Its Role in the World (USW)	3
LASC	Quantitative Reasoning (QR)	3
	Semester Subtotal	**16**

Semester Four		
Course No.	**Course Name**	**Credits**
AR, MU, or TH	Concentration Requirement	3
AR, MU, or TH	Concentration Requirement	3
AR, MU, or TH	Concentration Requirement	3
LASC	Global Perspectives (GP)	3
LASC	Human Behavior and Social Processes (HBS)	3
	Semester Subtotal	**15**

YEAR THREE

Semester Five		
Course No.	**Course Name**	**Credits**
AR,MU, or TH	Concentration Requirement	3
AR,MU, or TH	Concentration Requirement	3
SELECT	General Elective	3
SELECT	General Elective	3
LASC	Global Perspectives (GP)	3
	Semester Subtotal	**15**

Semester Six		
Course No.	**Course Name**	**Credits**
AR,MU, or TH	Concentration Requirement	3
AR,MU, or TH	Concentration Elective	3
LASC	Individual and Community Well-Being (ICW)	3
VP 300	Interdisciplinary Arts Seminar	3
SELECT	General Elective	3
	Semester Subtotal	**15**

YEAR FOUR

Semester Seven		
Course No.	**Course Name**	**Credits**
LASC	Creative Arts (CA)	3
LASC	Thought Language and Culture (TLC)	3
LASC	Human Behavior and Social Processes (HBS)	3
LASC	Natural Systems and Processes (NSP)	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Semester Eight		
Course No.	**Course Name**	**Credits**
LASC/ VP 400	Arts Capstone/Thesis	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
	Semester Subtotal	**15**

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

Visual and Performing Arts Courses

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

VP 200 Critical Thinking in the Arts

LASC—Creative Arts; Thought, Language and Culture

The experience of art, music, and theatre to develop individual critical thinking in the similarities and differences among the arts.
Offered every year. 3 credits

VP 210 Contemporary Dance Styles I

LASC—Creative Arts

The study and movement of dance vocabularies in one or more contemporary and modern styles.
Offered every year. 3 credits

VP 300 Interdisciplinary Arts Seminar

Prerequisite: VP 200

Examines examples of contemporary modes of interdisciplinary works of music, theatre, and visual art with the goal of developing an individual, creative aesthetic.
Offered every year. 3 credits

VP 310 Contemporary Dance Styles II

LASC—Creative Arts

Prerequisite: VP 210

The study and movement of contemporary dance vocabularies at the intermediate to advanced level.
Offered every year. 3 credits.

VP 375 Special Topics

A course that varies according to specific student and faculty interest.
Offered as needed. 3 credits

VP 400 Capstone/Senior Thesis

LASC - Major Capstone

Prerequisites: VP 200, VP 300, EN 102

Students research, design, and create works of art, music, and theatre for public presentation and evaluation by a faculty board of review.
Offer every year. 3 credits

VP 405 Independent Study in the Arts

Prerequisite: Permission of instructor.

An opportunity for students to examine topics not ordinarily covered in other arts courses.
Offered every year. 1-3 credits

VP 435 Internship in the Arts

Prerequisites: 2 relevant arts courses

Advanced students gain practical experience in a working arts environment.
Offered every year. 3-12 credits.

World Languages
Department of World Languages

Faculty

Guillermina Elissondo, Professor (1999)
B.A., Universidad Católica de Mar del Plata, Argentina; M.A., Michigan State University; Ph.D., University of North Carolina at Greensboro

Judith Jeon-Chapman, Professor (1993)
B.A., College of St. Benedict; M.A., Ph.D., University of Washington

Antonio Guijarro - Donadiós, Assistant Professor (2014)
B.A., Universidad Couplutense de Madrid, Spain; M.A. Salford University, England; M.A., Ph.D. University of Connecticut

Ana Pérez-Manrique, Associate Professor (2006), Department Chair
B.A., Universidad de Málaga, Spain; M.A., University of South Carolina; Ph.D., Florida State University

Juan Orbe, Professor (1996)
B.A., Universidad Nacional de La Plata, Argentina; M.A., Ph.D., Michigan State University

Courses

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

WL 101 Beginning World Language I

LASC—Global Perspectives

Beginning level I instruction in world languages that are not otherwise offered by the Department of World Languages.
3 credits

WL 102 Beginning World Language II

LASC—Global Perspectives

Beginning level II instruction in world languages that are not otherwise offered by the Department of World Languages.
3 credits

WL 210 Intermediate World Language I

Intermediate level I instruction in world languages that are not otherwise offered by the Department of World Languages.
3 credits

WL 211 Intermediate World Language II

Intermediate level II instruction in world languages that are not otherwise offered by the Department of World Languages.
3 credits

Courses in German, Italian, and Chinese

Professors Emeriti

Helen G. Agbay, Spanish 1974
Dr. Joshua U. Aisiku, Education 2009
Dr. Francisco Alcala, Spanish 1996
Dr. M. June Allard, Psychology 2005
Francis I. Amory, Urban Studies 2009
Dr. Eleanor Ashton, Psychology 2004
Charles D. Avedikian, Mathematics and Computer Science 1990
James R. Ayer, Languages and Literature 2000
Vera M. (Dowden) Baldwin, Education 1974
Nora M. Barraford, English 1984
Dr. Elizabeth T. Binstock, Education 2002
Dr. Edwin A. Boger, Biology 2000
Dr. Arnold J. Bornfriend, Business Administration and Economics 2000
Dr. Nancy Brewer, Health Science 2012
Francis L. Brooker, Sociology 2012
Dr. Anne M. Brown, Nursing 2002
Dr. Josefina S. Bunuan, Education 1999
Michael A. Burke, Health Science 1998
Dr. Philip J. Burns, English 2013
William Byers, Communications 2002
Dr. Jean A. Campaniello, Psychology 2002
Dr. Doris M. Carter, Visual and Performing Arts 1998
Jacqueline G. Casale, Art 1991
Dr. Jennie M. Celona, French 1996
Louis J. Celona, Music 1992
Dr. Harold L. Chapman, Physics 1988
Carol Chauvin-Fortier, Biology 1993
Dr. Yvonne Chen, Health Sciences 2001
Dr. Kee Il Choi, Business Administration and Economics 1992
Anna B. Cohen, Communication Disorders 1999
Dr. Alan D. Cooper, Chemistry 2014
Phyllis A. Crowley, English 1996
Dr. Joyce Cummings, Psychology 2002
Philip S. Dalton, History and Political Science 2000
Aldona Daly-Boxshus, Psychology 1995
Krishna DasGupta, Library 2011
Dr. Paul Davis, Media, Arts and Philosophy 1992
Vincent R. DeBenedictis, Foreign Languages 1990
Clement S. Delaney, History and Political Science 2008
Dr. Barbara A. Desrosiers, Psychology 1998
Daniel E. Dick, Natural and Earth Sciences 1989
Dr. John R. Dowling, Education 1998
Helen B. Duquette, Physical Education 1992
Francis T. Dyson, Physical Education 1993
Alfred F. Eddy, English 1990
Robert P. Ellis, English 1995
Dr. Leonard F. Farrey, Business Administration and Economics 2002
Dr. Arthur Ferguson, Chemistry 2006
Dr. Vivian C. Fox, History and Political Science 2004
Florence Fraumeni, Education 1985
Dr. Linda Fuller, Communications 2000
Yvonne Gallant-Martel, French 1977
Dr. Geoffrey J. Garrett, Physical and Earth Science 2004

Dr. C. Kenneth Gibbs, English 2010
James E. Girouard, Physical Education 1985
Bernard Goldsmith, History and Political Science 1995
Dr. Merrill H. Goldwyn, Languages and Literature 1998
Dr. John Goodchild, Chemistry 2013
Dr. Linda S. Gordon, Languages and Literature 2003
Loren N. Gould, Natural and Earth Sciences 1993
Dr. Terry E. Graham, Biology 2003
Emmet J. Grandone, Languages and Literature 1998
Ruth E. Greenslit, Library 1989
Sandra A. Hall, Nursing 2002
Dr. Nancy E. Harris, Education 1999
Dr. Robert J. Hartwig, Business Administration and Economics 2004
Mary T. Hayes, Education 1974
Bruce Henry, Mathematics and Computer Science 2001
Mary Ellen Herx, English 1989
Dr. Nancy Hicks, Physical and Earth Science 2005
Dr. W. Mack Hill, Mathematics 2004
David W. Hilton, Computer Science 1999
Dr. Donald D. Hochstetler, Library 2012
Paul A. Holle, Biology 1989
Richard G. Hunt, Physical and Earth Science 2007
Ronald W. Hurd, Physical and Earth Science 2004
Marion J. Jennings, Education 1978
Alfred C. Johnson, Mathematics 2004
Jean E. Johnson, English 1990
Nancy A. Johnson, Education 1995
Dr. Joline N. Jones-Matheson, Psychology 2006
Dr. Donna M. Joss, Occupational Therapy 2004
Dr. Donald L. Joyal, Business Administration and Economics 2008
Dr. Joan K. Juralewicz, Education 2002
Dr. Richard S. Juralewicz, Business Administration and Economics 2001
Robert G. Kane, History 1999
George T. Kelley, Economics 1997
Robert F. Kelley, Physics 1988
Dr. Baheej B. Khleif, Sociology 1994
Margaret A. Kittredge, Spanish 1995
Sandra Kocher, Art 1992
Dr. Ellen V. Kosmer, Visual and Performing Arts 2004
Professor Marshall J. Kotzen, Mathematics 2013
Jerome L. Langer, Business Administration 1982
Edward H. Leonard, Physics 1984
Robert E. Lingner, Physical and Earth Sciences 2005
Dr. Mary Lou Lovering, Nursing 2000
Dr. Augustus N. Luparelli, Business Administration and Economics 2014
Dr. Carol E. Lysaght, Communication Disorders 1996
Dr. Gordon S. Matheson, Psychology 2004
Gary W. McEachern, Business Administration and Economics 1998
Bernard L. McGough, Media 1994
Robert F. McGraw, History 1991
Pamela McKay, Senior Librarian, Library 2013
John F. McLaughlin, Communication Disorders 1996
Professor, Catherine McNeil, Occupational Therapy 2013
Dr. Mary Ellen Meegan, Education 2009
Dr. Melvin Merken, Chemistry 2010
Michel D. Merle, Visual and Performing Arts 2005

Professors Emeriti

Dr. A. Gibbs Mitchell, History 1996
John P. Mockler, Physical Education 1992
Dennis P. Moore, Business Administration and Economics 2012
Dr. Pearl Mosher-Ashley, Psychology 2011
Michael E. Mulcahy, Mathematics 2005
Dr. John M. Nash, Psychology 1993
Francis J. O'Connor, Spanish 1980
Richard A. O'Connor, Psychology 1994
Dr. Virginia Ogozalek, Computer Science 2003
Professor, Catherine McNeil, Occupational Therapy 2013
Paul F. O'Neil, Education 1997
Dr. Chad C. Osborne, Education 2002
Dr. Ruth Ostenson, Psychology 2002
Dr. Surindar Paracer, Biology 2013
Dr. Robert F. Perry, Geography 1987
Dr. Robert J. Perry, Mathematics 2008
Vincent Piccolo, Media 1988
Dr. Frank C. Pizziferri, Sociology 1995
Dr. Maryann C. Power, Communication Sciences and Disorders 2011
Dr. Vincent E. Powers, Urban Studies 2000
Catherine I. Quint, Education 1985
Dr. David Quist, Education 2003
Dr. Donald A. Read, Health Sciences 2001
Dr. Robert Redding, Mathematics 2004
Dr. Susan V. Rezen, Communication Sciences and Disorders 2008
Gerald Robbins, Philosophy 2007
Dr. Jeffrey L. Roberts, Languages and Literature 2001
Dr. Thomas L. Roberts, Biology 1988
Evelyn Robinson, Mathematics 1978
Dr. Helen M. Rogers, Nursing 2006
Bruce D. Russell, Biology 2003
Dion Schaff, Philosophy 1993
Robert L. Shafner, Business Administration and Economics 2010
Helen G. Shaughnessy, Education 1986
Dr. Courtney Schlosser, Philosophy 2013
Dr. Ann Marie Shea, Visual and Performing Arts 2005
Dr. Emmett A. Shea, History and Political Science 2012
Dr. Katherine M. Shea, Foreign Languages 1991
Dr. Robert M. Spector, History and Political Science 2008
William L. Sullivan, English 1983
Dr. Elaine G. Tateronis, Dean, School of Education Health and Natural Sciences 2012
G. Flint Taylor, Psychology 1985
Robert W. Thompson, Physical and Earth Sciences 2005
Anthony W. Thurston, Biology 1983
Dr. Donald F. Traub, Philosophy 1998
F. Stephen Trimby, Business Administration and Economics 2004
Richard S. Tyrell, English 1994
Dr. Andrea J. Wallen, Nursing 2011
LLoyd P. Wheaton, Chemistry 2002
Dr. James R. Wicka, Communication Sciences and Disorders 2006
Dr. Gary G. Young, Business Administration and Economics 2002
Dr. Cheng Yuan, History and Political Science 2000
Dr. Manuel Zax, Mathematics 1992
Faith T. Zeadey, Sociology 2003
Matthew Zelman, Sociology 2004
Dr. Estelle C. Zoll-Resnik, Chemistry 1997

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1970-1975

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1975-1982

Philip D. Vairo
1982-1991

Kalyan K. Ghosh
1992-2002

Janelle C. Ashley
2002-2011

Barry M. Maloney
2011-

Administrative Offices

Office of the President

Barry M. Maloney, President of the University (2011)
B.S., M.A., University of Maine, Orono

Renae Lias Claffey, Assistant to the President for Campus Communications (2013)
Graduate Certificate, Economic and Social Development of Regions, B.A., University of North Carolina Chapel Hill

Patrick D. Hare, Staff Assistant (2014)
B.S., M.S., Non-Profit Management Worcester State University

Carl Herrin, Assistant to the President for International Community and Government Affairs (2012)
B.A., Georgetown University

Calvin R. Hill, Assistant to the President, Director of Diversity, Inclusion and Equal Opportunity (2010)
B.A., Bethany College; M.S., Emporia State University; Ph.D., Howard University

Nicole Kapurch, Staff Associate/Communications and Budget Manager (2012)
B.A., Worcester State College

Academic Affairs

Anthony K. Adade, Associate Vice President & Chief Information Officer, University Technology Services (2013) B.S., Northeastern University; M.S., Ph.D., Lesley University

Rosemary Ahmadi, Staff Associate/Instructional Designer, University Technology Services (2014) B.A., Worcester State College, M.A., Clark University

Matthew Bejune, Assistant Librarian (Information Literacy), Library (2013)
B.A., University of Massachusetts Amherst; M.S., Syracuse University

Laxmi Bissoondial, Staff Associate/Coordinator, Multicultural Affairs (2012)
B.S., Worcester State College; M.Ed., C.A.G.S., University of Massachusetts Amherst

Betsey J. Brenneman, Senior Librarian (1977)
B.S., Kent State University; M.L.S., Syracuse University; M.A.T., Fitchburg State College

Kenton Brister, Staff Assistant/Lab and Administrative End User Support, University Technology Services (2014) A.S., Quinsigamond Community College

Joan Butterworth, Staff Assistant/Clinical Supervisor, Communication Sciences and Disorders (2008) B.S., Northeastern University; M.S., Purdue University

Tarik Buxton, Staff Assistant/Database Programmer/Administrator, University Technology Services (2014) B.S., Worcester State University

Andrew Calcutt, Staff Associate/Server Support Specialist, University Technology Services (2006)

Jill Carroll, Staff Assistant/Nursing Lab Coordinator, Nursing (2014), A.S.N., Quincy College; B.S.N., University of Massachusetts Boston; M.S.N., Salem State University

Candice Casey, Staff Associate/Director of the Krikorian Gallery and Gallery Store, Worcester Center for Crafts

Laura Caswell, Staff Associate/Data Administrator, University Technology Services (1998) A.S., Quinsigamond Community College; B.S., Worcester State College

Stephanie Chalupka, Associate Dean, Nursing (2008)
A.S., Quinsigamond Community College; B.S., Worcester State College; Ed.D., University of Massachusetts Amherst

Jeffrey Carter, Staff Assistant/Academic Advisor, Academic Success Center (2013)
B.A., Elizabethtown College, B.A., University of Delaware, M.A., University of Connecticut

David Caruso, Interim Provost/Vice President for Academic Affairs (2014)
B.A., M.A., Sonoma State University, Ph.D., Cornell University

Sainath Chinnaswamy, Executive Director of the Library (2013) B.E., University of Madras; M.L.S., Louisiana State University; M.B.A., University of Arizona

Suzanne Crawford-Stacy, Staff Assistant/Clinical Instructor, Communication Sciences and Disorders (2013) B.S., Worcester State College, M.S., University Of Vermont

Edward Crowley, Staff Assistant/Student and Administrative User Support, University Technology Services (2014) A.S. Quinsigamond Community College

Joyce A. Danelius, Assistant Director & Help Desk Service Coordinator End User Academic Services, University Technology Services (1980)

Amy Ebbeson, Staff Assistant/Next Step Coordinator, Graduate & Continuing Education (2013) B.A., Roger Williams University; M.A., Boston University

Huy Dao, Staff Associate/Network Manager, University Technology Services (1998)
B.S., M.S., Worcester State University

Gina-Marie Fleury, Staff Assistant/Clinical Resources Coordinator, Nursing (2012)
A.S., Quinsigamond Community College; A.D.N., Nursing, Mt. Wachusett Community College; B.S., M.S., Worcester State University

Raven Fonfa, Assistant Librarian (Reference), Library (2012)
B.A., Mills College; MILS, University of California

Telese Forbes, Staff Assistant, Graduate Admissions/Graduate & Continuing Education (2001)
A.S., Springfield Technical Community College; B.S., M.S., Worcester State University

John Gaucher, Staff Assistant/Server Support Specialist, University Technology Services (2007)
B.S., Worcester State College

Patricia George, Staff Associate/Academic Fieldwork Coordinator, Occupational Therapy (1998)
B.S., M.S., Worcester State College

Catherine Goodwin, Staff Assistant/ESL Instructor, Graduate and Continuing Education (2009) B.A., Mount Holyoke College; M.A., School for International Training

Sara Grady, Acting Associate Dean, Graduate and Continuing Education (2008) B.A., M.B.A., Assumption College

Nelson E. Guaman, Staff Assistant/End User Support Services, University Technology Services (2002) B.S., M.Ed., Atlantic Union College

Leah Guzman, Staff Assistant/Program Coordinator, Intensive English Language Institute (2007) B.A., B.S., Worcester State College

Honee Hess, Executive Director, Worcester Center for Crafts (2012) M.A.T., Julane University; B.A., C.O.E., College University of CO, Florence Italy Reynaldo House Museum of American Art

Susan Johnson-Hood, Staff Assistant/Theatre/Costume/Designer, Visual and Performing Arts (2011) B.F.A., Arizona State University, M.F.A, University of Minnesota

Lisa Krissoff Boehm, Interim Dean School of Humanities and Social Sciences (2000) B.A., Northwestern University; M.A., The University of Chicago; Ph.D., Indiana University

Roberta L. Kyle, Acting Associate Vice President for Continuing Education and Acting Dean of Graduate Studies (2008) B.A., M.A., University of New Hampshire; M.A., International Administration, School of International Training; Ed.D., University of San Francisco

Monique Labelle, Staff Assistant to the Dean, School of Humanities and Social Sciences, Academic Affairs (2010)

Frances Langille, Staff Assistant/Coordinator, Intergenerational Urban Institute (2001) B.S., Bridgewater State College

Linda Larrivee, Dean, School of Educational, Health and Natural Sciences (2013) B.S., M.S., Worcester State College, Ph.D. University of Kansas

Gina Lavallee, Staff Assistant to the Provost and Vice President for Academic Affairs (2013) B.A., M.Ed., Worcester State University

Megan Lavalette, Staff Assistant/Academic Advisor, Academic Success Center (2013) B.A., University of Connecticut, M.S., Northeastern University

Colleen E. Laviolette, Assistant Director IT Administrative Services, University Technology Services (1983) B.S., Worcester State College

Jeffrey LeBrun, Staff Assistant/Tech Room Student Support Services, University Technology Services (2008) B.S., Worcester State College

Nathan Lee, Staff Assistant/Theatre Technical Director, Visual and Performing Arts (2011) B.A., M.F.A., University of Hawaii, Manoa

Carol M. Lerch, Assistant Vice President for Assessment and Planning (2011) B.A., Regis College; M.A., Bridgewater State College; Ph.D., Boston College

Raynold M. Lewis, Professor (1998), Associate Dean for Education, School of Education, Health and Natural Sciences (2012)B.A., West Indies College; M.Ed., Worcester State College; Ph.D., Illinois State University

Ramsay MacInnes, Staff Assistant/End User Support Services, University Technology Services (1999)

Alison Majeau, Associate Librarian (2007)
B.A., Southern Connecticut State University; M.S., Simmons College

Mary Jo Marion, Executive Director, Latin Education Institute (2008)
B.A., Suffolk University; M.A., University of Chicago

Patricia A. Marshall, Associate Vice President for Academic Affairs (2004)
B.A., Colby College; M.A., Ph.D., Brown University

David Needham, Staff Assistant/University Training and Support Specialist, University Technology Services (2009) B.S., Worcester State University

Thomas O'Malley, Staff Associate/Program Liaison, Worcester Center for Crafts (2009)
B.F.A., Alfred University; M.F.A., Rhode Island School of Design

Katey Palumbo, Director, International Programs (2010)
B.S., University of Miami; M.Ed., Fitchburg State University

Angela Quitadamo, Director of Retention, Academic Affairs (2012)
B.A., University of Massachusetts Amherst; M.S., Worcester State University

Susan Rainville, Staff Assistant to the Dean, School of Education, Health and Natural Sciences, Academic Affairs (1995)

Hilda Ramirez, Assistant Director, Public Policy and Program Incubation, Latino Education Institute (2012)
A.A, Bay State College; B.A., Lesley University; M.Ed., Harvard University

Jack J. Reardon, Associate Director of Network and Infrastructure Services, University Technology Services (2003) B.S., Bridgewater State College

Kristina Rearick, Staff Assistant/Database Coordinator/Research Analyst, Assessment and Planning (2011) B.A./B.A., University of Massachusetts Amherst; M.S., Ed.D., American International College

Jorge J. Rolffot Poueriet, Staff Associate/Senior Windows Server and Telephony Administrator, University Technology Services (2004)
B.A., Universidad Dominicana O&M

Susan Seibel, Director, Intensive English Language Institute (IELI), Graduate and Continuing Education (2006) B.A., Clark University; M.Ed., Worcester State College; C.A.G.S., University of Massachusetts Amherst

Gale Scott, Staff Associate/Director of the Glass Studio and Head of Metals Department, Worcester Center for Crafts (2013)
B.F.A.,University of Illinois at Urbana/Champaign, M.F.A., Massachusetts College of Art

William Shakalis, Assistant Librarian, Library (2010)
B.A., Villanova University; M.S., Simmons College

Kenneth Smith, Director of Institutional Research, Institutional Research (2006)
B.A., Southeastern Louisiana University; M.B.A., University of Mississippi

Robert Soderman, Staff Assistant/Computer Systems Technician, University Technology Services (2000) A.S., Quinsigamond Community College

Gerald E. Sorge Jr., Director Academic Affairs Administrative Support (1997)
B.S., State University of New York Fredonia; M.S., University of New Hampshire

LeighAnn Soucy, Staff Assistant/Academic Advisor, Academic Success Center (2011)
B.A., University of New Hampshire; M.Ed., James Madison University

Tammy Tebo, Assistant Dean for Academic Services (2013)
B.A., Westfield State College; M.Ed., Springfield College

Isaac D. Tesfay, Staff Associate/Upward Bound Coordinator, Office of Multicultural Affairs (2012) B.A., College of the Holy Cross; M.B.A., Clark University

Marcela A. Uribe-Jennings, Assistant Dean/Director, Office of Multicultural Affairs Alternatives for Individual Development (1982) B.S., M.Ed., Worcester State College

Ann T. Veneziano-Korzec, Director, Worcester State University Speech-Language-Hearing-Center (1988)
B.A., Boston College; M.S., Syracuse University

Colleen Wheaton, Director of the Academic Success Center, First Year and Transfer Services, Academic Success Center (2011) B.A., M.Ed., Suffolk University

Thomas R. White, Assistant Director Multimedia Services, University Technology Services (1980)

Administration and Finance

Stephen Bandarra, Staff Assistant/Sustainability Coordinator, Facilities (2012)
B.S., Providence College

Gary Beauregard, Staff Assistant, Facilities (1992)

Lynn E. Bromley, Director Payroll (1992) B.S., M.S., Worcester State College

Brenda Bussey, Director, Procurement and Accounts Payable (2011)
B.S., B.A., Northeastern University; M.B.A., Suffolk University

Paula Carey, Assistant Director, Procurement and Accounts Payable (2013)
A.B., Quinsigamond Community College; B.A., Worcester State College

Julie Carmel, Director/Student Accounts Manager/Bursar (1992)
A.B., Becker Junior College

Linda Crocker, Staff Assistant/Grants Coordinator (2008)
B.A., Eisenhower College

Carole Cronin, Staff Assistant/OneCard Administrator (1985)

Robert P. Daniels, Associate Director, Health and Safety Officer, Facilities (2004)

Kathleen Eichelroth, Chief Financial Officer & Vice President of Administration and Finance (1998) B.A., University of Massachusetts Dartmouth; CPA, Massachusetts

Carol A. Faron, Staff Assistant, Human Resources (1997)

Peter Fenuccio, Associate Director, Facilities (2004)
Worcester Technical Institute

Steven Gillis, Associate Director, Facilities (2012)
B.S., Northeastern University

Betsey Lee Green-Baker, Staff Associate/Controller, Worcester Center for Crafts (2011)
B.S., University of New Hampshire; M.B.A., Seattle University

Eric Hansen, Associate Director, Facilities (2012)
B.S., Western New England College

Edward Horniak, Staff Assistant/Supervisor of Trades, Facilities (2010)

Anisa Hoxha, Staff Assistant/Financial Analyst, Administration and Finance (2012)
B.S., Nichols College

Suze Jean-Charles, Staff Assistant/Benefits Coordinator, Human Resources (2014)
B.A., M.A., Clark University

Debra Kuczka, Staff Assistant to the Vice President for Administration and Finance (2009)
B.S., Worcester State College

Mark LaCroix, Assistant Director, Publications and Printing Services, Administrative Services (2008) A.S., Quinsigamond Community College

Sandra Olson, Director of Facilities (2003)
B.S., Worcester Polytechnic Institute; M.B.A., Clark University

Mary Renee Polakowski, Staff Assistant/Manager of Financial Reporting (2010)
B.S., Assumption College

Robin Quill, Associate Vice President Administration and Finance (2003)
B.S., Worcester State College

Nancy Ramsdell, Director of Administrative Services (2005)

Ralph Ricci, Staff Assistant/Supervisor Central Services, Administrative Services (1992)

Melissa A. Staiti, Staff Assistant/Manager of Financial Records and Treasury (2005)
A.A., Becker College; B.A., Worcester State College

Enrollment Management

Alexandra Bellerose, Staff Assistant/Admissions Representative, Admissions (2013)
B.A., Assumption College

Kimberly D. Brothers-Caisse, Staff Assistant/Marketing Content Manger, Marketing (2007)
B.S., James Madison University

Tiana Carrasquillo, Associate Director of Admissions, Admissions Office (2013)
B.A., University of Connecticut, Storrs; M.Ed., University of Massachusetts, Amherst

Julie A. Chaffee, Director Student Records, Registrar (1994)
B.A., St. Anselm College

Joseph J. DiCarlo, Director Admissions (2012)
B.A., Assumption College; M.A., Framingham State University

Rebecca L. DesRoches, Associate Director/Social Media Brand Manager, Marketing (2005) B.S., B.A., Western N.E. College; M.S., Rensselaer Polytechnic Institute

Kirshner Donis, Associate Director Admissions (2003)
B.A., Clark University; M.S., Worcester State College

Christopher J. Dooley, Assistant Director Admissions (2005)
B.S., Becker College

Jennifer English, Associate Director Financial Aid (1999)
B.A., Mount Holyoke College

Administrative Offices

Ryan Forsythe, Vice President for Enrollment Management (2014)
B.S., Westfield State University; M.Ed. University of Massachusetts Amherst; Ed.D., Trevecca Nazarene University

Kathleen M. Keegan, Staff Assistant/Financial Aid Advisor, Financial Aid (1998)
B.A., Worcester State College

Benjamin T. McElroy, Assistant Director Admissions (2000)
B.A., Worcester State College

Jayne A. McGinn, Director Financial Aid (1998)
B.A., M.S. Non-Profit Management Worcester State University

Kimberly Oikle, Staff Assistant, Financial Aid (2008)
B.S., Worcester State College

Tara A. Probeck, Executive Director of Marketing (2013)
B.S., Bryant University; Graphic Design Certificate, Clark University; Certificate, New England Institute of Art

Deborah C. Fields Quinn, Staff Associate to the Vice President of Enrollment Management (1997)

Margaret F. Shagro, Staff Assistant/Counselor, Financial Aid (1997)
B.A., St. Michael's College

Steven J. White, Staff Associate/Web Project Manager, Marketing (2006)
B.A., Worcester State College

Maribeth Wrobel, Associate Director Student Records and Registrar (2003)
B.S., M.S., Worcester State College

Student Affairs

Jillian Anderson, Director of Career Services (2007)
B.A., Westfield State College

Dirk Baker, Staff Assistant, Athletics (2000)
B.A., Ed.M., Ed.D., Boston University

Laura Boliver, Staff Assistant/Residence Director/Residence Life and Housing (2014)
B.S., Anna Maria College; M.S., Central Connecticut State University, New Britain, CT.

Daniel Devine, Staff Assistant/Lieutenant, University Police (2007)
B.S., Anna Maria College

Kevin J. Fenlon, Staff Assistant/Counselor, Counseling Services (2008)
B.A., M.A., Assumption College

Melissa Fleming, Director, Conference and Event Services (2005)
B.A., Worcester State College

Adrian C. Gage, Assistant Dean, Director, Residence Life and Housing (2005)
B.S., Oklahoma State University; M.Ed., Clemson University

Debra W. Gaston, Assistant Director Counseling Services, Sexual Assault Counseling (1999)
B.A., St. Olaf College; M.A., Ph.D., University of Connecticut

Shauna M. Gendron, Staff Associate/Event Coordinator, Conference and Event Services (2011) A.A., Quinsigamond Community College; B.A., Worcester State University

Alan E. Jackson, Director of Veteran Services, Student Affairs (1983)
A.B., Southern Massachusetts University; M.Ed., Worcester State College

Bridget Joiner, Staff Assistant to the Dean of Student Affairs and Senior Student Affairs Executive Officer (2012)

Jason Kapurch, Staff Assistant, Interim Captain/Executive Officer, University Police (1991)

Joshua Katz, Staff Associate/Judicial Coordinator, Office of Student Conduct (2006)
B.A., Worcester State University

Julie Kazarian, Dean of Student Affairs, Senior Student Affairs Officer (2000)
B.A., M.S., Worcester State College

Thomas Kelley, Assistant Director, Residence Life and Housing (2014)
B.A., Westfield State University, M.S., University of Rhode Island

Matthew Kelly, Staff Assistant/Counselor, Counseling Services (2010)
B.A., M.A., University of Vermont

David Lindberg, Assistant Director Athletics/Wellness, (1994)
B.S., Worcester State University

James Lockwood, Staff Assistant/Athletic Services Manager, Athletics (2005)
B.S., Worcester State College

Kevin C. MacLennan, Staff Assistant/Assistant Athletic Trainer, Athletics (2003)
B.A., Westfield State College

Frances Manocchio, Director Disability Services (2011)
B.A., Merrimack College; M.A., CAGS, Assumption College

William Marrier, Staff Assistant/Lieutenant, University Police (2006)

Amy Mason, Staff Assistant/Residence Director, Residence Life and Housing (2014)
B.S., University of Massachusetts Dartmouth; M.Ed., Springfield College

Dianne E. Matos, Assistant Director, Career Services (2004)
M.A., St. Michael's College; M.Ed., Suffolk University

Kelly McGill, Staff Assistant/Disability & Learning Specialist, Disability Services (2013)
B.S., Framingham State College; M.A.T., Sacred Heart University

Kristie M. McNamara, Associate Director Office of Student Involvement and Leadership Development (2001) B.A., Framingham State College; M.Ed., Bridgewater State College

Jessica Meany, Staff Assistant/Women's Head Athletic Trainer, Athletics (2002)
B.A., M.Ed., Worcester State College

John Meany, Deputy Director of Athletics (2004) B.A., Middlebury College

Steven Miller, Jr., Staff Assistant/Sports Information Director, Athletics (2008)
B.A., Bridgewater State College

James Mournighan, Assistant Director, Residence Life and Housing (2005)
B.S., Bridgewater State College; M.S., Non-Profit Management Worcester State University

Administrative Offices

Michael Mudd, Director of Athletics (2014)
B.A., St. Lawrence University; M.S., Miami University

Laura A. Murphy, Assistant Dean and Director of Counseling Services (1989)
B.A., M.A., C.A.G.S., Assumption College

Rosemary Naughton, Associate Dean of Student Affairs and Student Conduct within Student Affairs (2001)
B.A., Anna Maria College; M.Ed., CHES, Worcester State College

Kristen Nelson, Associate Director Residence Life and Housing (2009)
B.A., Keene State College; M.S., C.W. Post-Long Island

Michael Nockunas, Director and Chief of Safety and Security, University Police (2014)
B.S., M.S., Anna Maria College

Sarah Potrikus, Staff Assistant/Coordinator Student Involvement and Commuter Services (2013) B.S., Eastern Connecticut State University; M.S., University of Rhode Island

Jennifer Quinn, Staff Assistant/Health and Wellness Educator (2010)
B.S., M.Ed., Worcester State College

David J. St. Martin, Staff Assistant/Emergency Management Planner/Technical Service Coordinator, University Police (1999) B.S., Worcester State College

Carrie Stevens, Staff Assistant/Residence Director, Residence Life and Housing (2005)
B.A., Worcester State College

Timothy J. Sullivan, Associate Dean Student Affairs and Director Office of Student Involvement and Leadership Development (1980)
A.B., Clark University; M.A., Assumption College

Karen Tessmer, Associate Director/Assistant Athletic Director, Athletics (1994)
B.A., Gettysburg College; M.A., James Madison University

Michael Vigeant, Staff Assistant/Lieutenant, University Police (2014)
A.A.S., Lincoln College of New England; B.S., Western New England University; M.S., Anna Maria College

Mark Wagner, Director of the Center for Service Learning and Civic Engagement (2012)
B.A., University of Massachusetts Amherst; M.A., Boston University; Ph.D., RMIT

University Advancement

Camilla Caffrey, Interim Executive Director of Alumni/Institutional Advancement (1997)
B.A., The College of the Holy Cross

Marion Catacchio, Director of Financial Records (1997)
B.S., Worcester State College; M.S., Bentley College

Diana Curran, Staff Assistant Annual Giving Coordinator (2013)

Rachel Faugno, Staff Assistant/Senior Writer, Editor and Production Coordinator (2001)
B.S., Worcester State College; M.A., Clark University

Lisa G. Godfrin, Interim Assistant Director of Advancement Services (2006)
A.S., New England Institute of Technology; A.A., Community College of Rhode Island

Jane Grant, Director of Leadership Giving (2012) B.A., Clark University

Nicole Losavio, Assistant Director of Alumni (2010)
B.A., Massachusetts College of Liberal Arts; M.A., College of William and Mary

Thomas McNamara, Vice President of University Advancement (1998)
B.A., Worcester State College

Karen Sharpe, Executive Director University Advancement (2011)
B.A., Clark University; M.A., Fitchburg State College

Louise Taylor, Staff Assistant to the Vice President of University Advancement (2004)

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ALUMNI

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Directions to the Campus

By Auto

From Massachusetts Turnpike (I-90):
Take Exit 10 *(Auburn)* to Rt. 290 East. *(see from 290 East)*

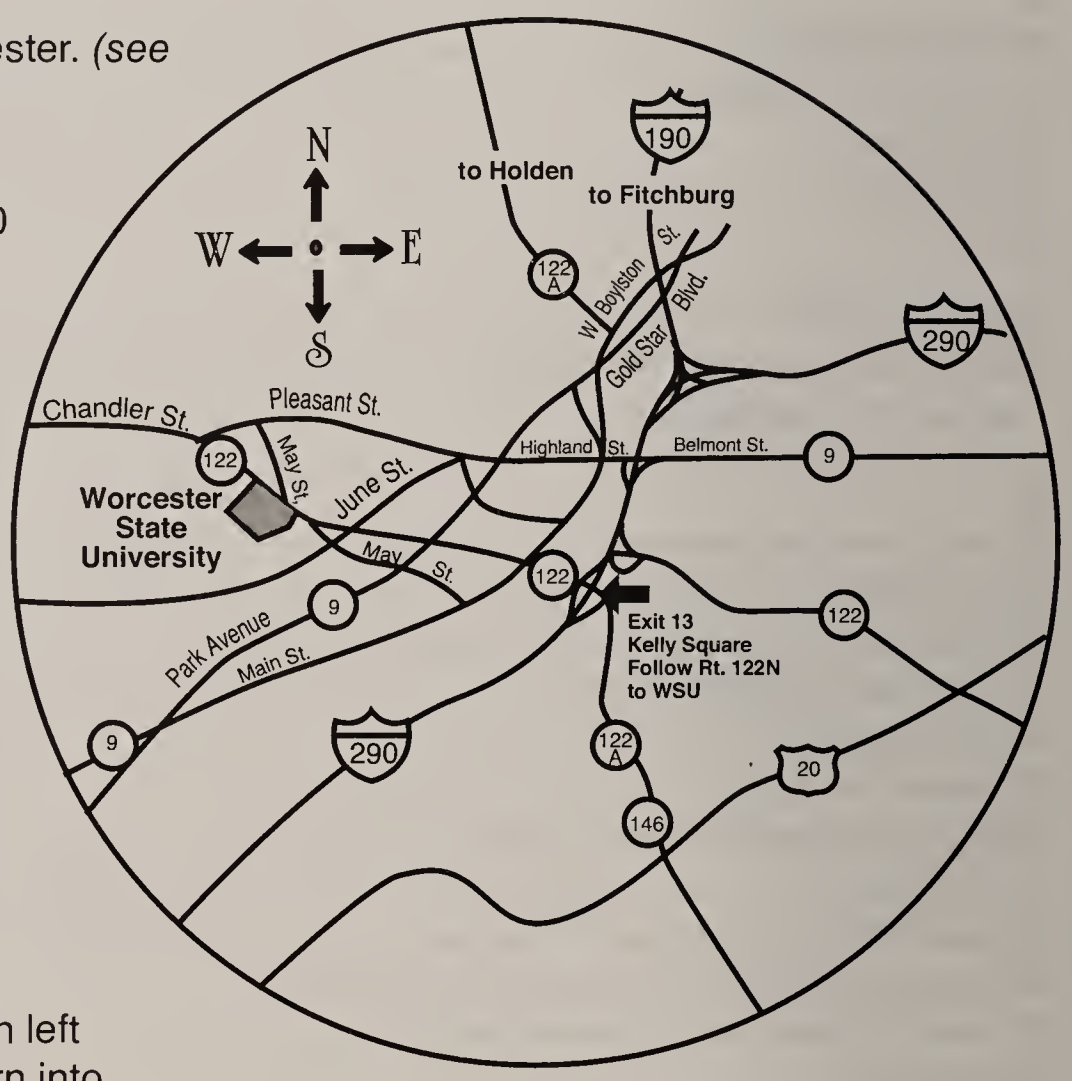
From Rt. 495:
Take Exit 25 to Rt. 290 West. *(see from 290 West)*

From Rt. 9 West:
Follow Rt. 9 West into Worcester. *(see from Highland Street)*

From Rt. 146 North:
Take Rt. 146 North to Rt. 290 East. *(see from 290 East)*

From Rt. 190 South:
Take Rt. 290 West. *(see from 290 West)*

From Rt. 290 West:
Take Exit 18 *(Rt. 9 West)*; turn right off exit ramp and stay in center lane, following directions for Rt. 9 West. Turn right onto Rt. 9 West, also known as Highland Street. *(see from Highland Street)*



From Rt. 290 East:
Take Exit 17 *(Rt. 9 West)*; turn left onto Rt. 9 West which will turn into Highland Street at the bottom of the hill. Proceed up the hill onto Highland Street. *(see from Highland Street)*

From Highland Street:
While on Highland Street, stay in the right lane. Stay on Highland Street for 1.5 miles. *(You'll pass Elm Park and Doherty High School on the left.)* At the rotary, take the third right onto June Street. At the second light, turn right onto May Street. The main entrance to the University will be three blocks ahead on the left.

For more information on public transportation, airport and carpooling, visit **www.worcester.edu/directions**

[*2]

WORCESTER STATE UNIVERSITY

486 Chandler Street
Worcester, MA 01602-2597
Tel: 508-929-8000
www.worcester.edu

Key to the Campus

1 Sullivan Auditorium

2 Sullivan Academic Center
Eager Auditorium—1st floor
Sullivan Commons Woo Café—1st floor

3 Bus Shelter

4 Satellite Parking Shuttle Services

5 Helen G. Shaughnessy Administration Bldg.
Admissions, Fuller Theatre—2nd floor
Academic Mall (Various Services)—1st floor

6 Ghosh Science & Technology Bldg.
102 Auditorium–1st floor
Mary Cosgrove Dolphin Gallery—1st floor

7 Wellness Center
under construction–opening 2016

8 Rockwood Field

8a Kevin Lyons Baseball Diamond

8b Rockwood Softball Field

9 Coughlin Athletic Field

10 Student Center
Bookstore, Food Court, Blue Lounge—1st floor
Temporary Wellness Area (North/South)—1st floor
Lancer Loft, Fallon, and Foster—3rd floor

11 Learning Resource Center
Library–2nd & 3rd floor
Starbucks Café—2nd floor

12 Parking Garage

13 Wasylean Hall—*Residence*
Java Junction, University Police—lobby

14 Tennis Courts

15 Chandler Village—*Residence*

16 Dowden Hall—*Residence*

17 Campus Ministry

18 Sheehan Hall—*Residence, Main Campus Dining opening fall 2014*

19 May Street Building & Auditorium

20 Athletic Offices/Health Services

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